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ABSTRACT

This document consists of ten consecutive issues of the serial "Rural Trends and Conditions," extending from Spring 1995 through February 1999. Issues contain information and statistical data on rural economic and social conditions. Beginning with the Fall 1995 issue, issues exhibit repeating themes such as "Financial Institutions", "Rural Industry", "Federal Programs", "Socioeconomic Conditions." While the conditions and trends described in this serial will be of general interest to rural educators, there is little material directly related to education. The "Federal Programs" issues (v7 n2 and v8 n1) usually have a single chapter on "Education and Training." The financial issues usually contain some data pertaining to earnings and educational level of hired farm labor. The socioeconomic issues for this period contain population and migration data showing that the rural "brain drain" that involved loss of college-educated people from rural areas during the 1980s is no longer evident in the late 1990s. (EF)

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Rural Conditions and Trends

v6 n1 Spr 1995 — v9 n2 Feb 1999

10 Consecutive Issues

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Rural Conditions and Trends

Economic Research Service • United States Department of Agriculture • Spring 1995 • Vol. 6, No. 1

.Rural Trends in the Early 1990's . . .

Population growth is widespread

Employment grows as unemployment falls

"Brain drain" slows

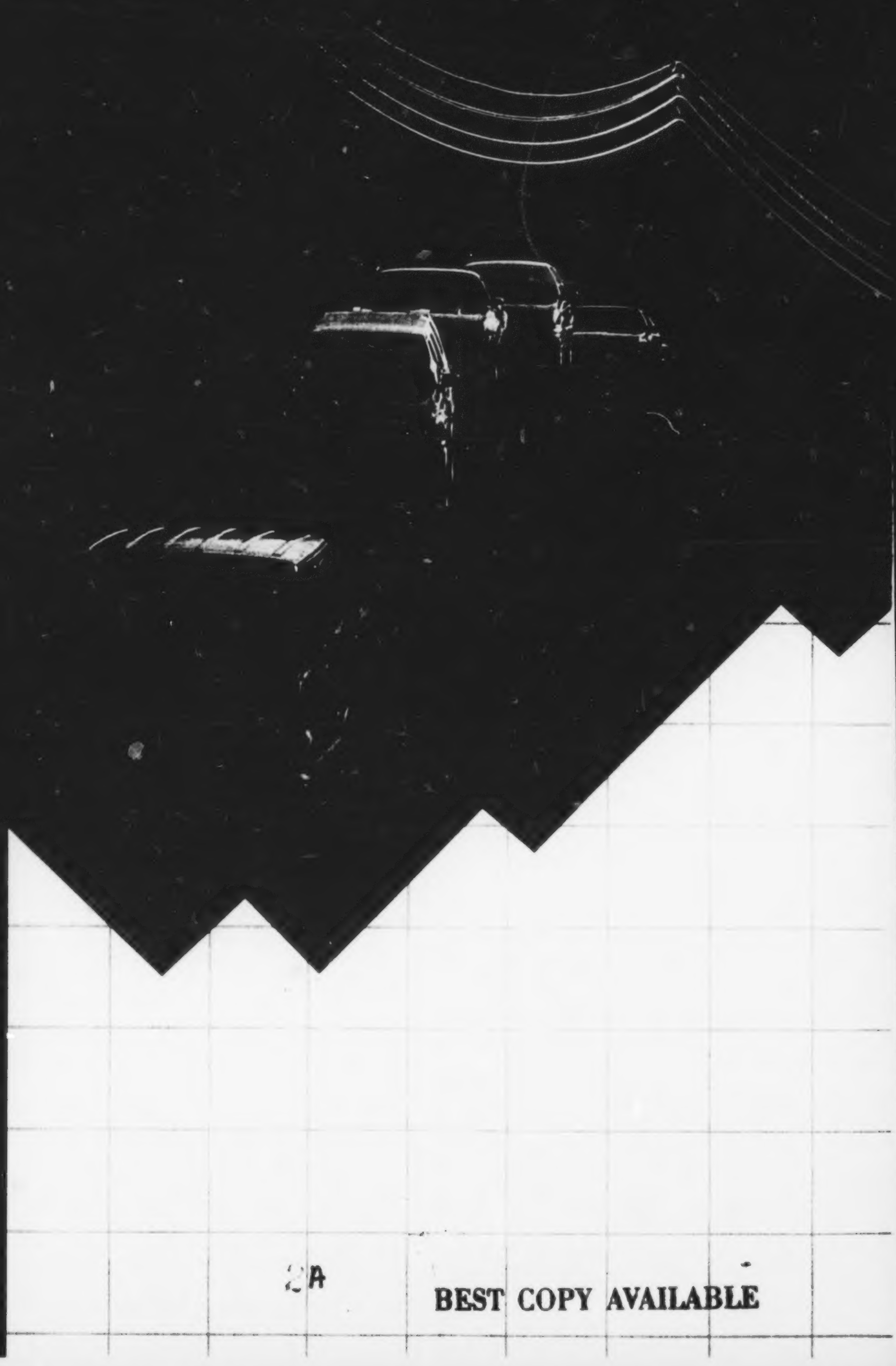
Earnings are still stagnant

Household income declines and poverty rates increase

Dependence on government transfer payments increases

Farm household income on par with other U.S. households

Farmworkers' earnings remain low



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Rural Conditions and Trends

Spring 1995, Vol. 6, No. 1

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Indicators Point to a Post-1990 Revival in Rural Areas with Some Cautions

Post-1990 data suggest the possibility of a new rural revival although the indicators are not conclusive. During the 1990's, rural areas have seen widespread rural employment and population growth. However, rural real earnings have not improved in the 1990's, rural real household incomes have declined, and rural poverty rates are higher now than at the beginning of the decade.

This issue of *Rural Conditions and Trends* (RCaT) provides both a snapshot of current socioeconomic conditions in rural areas of the country and an early review of rural trends in the 1990's. Although data available for the early 1990's are far less complete than decennial Census of Population data, this issue updates analyses from the Fall 1993 special Census issue of *Rural Conditions and Trends* (Vol. 4, No. 3). That issue used Decennial Census of Population data to document rural changes between 1980 and 1990 and compare them with 1970-80 changes.

The 1980's were a decade of widespread rural economic stress. The special Census issue showed that the rural turnaround of the 1970's evaporated in the 1980's. Not only did the widespread nonmetro population growth that characterized the 1970's disappear in the 1980's, but the pattern of improvement in rural earnings and income that had occurred in all decades since World War II disappeared as well. As a result, rural-urban gaps in income and poverty increased for the first time in the 1980's.

The post-1990 data analyzed in this issue present a decidedly mixed picture. On the one hand, population and employment data suggest a new rural revival, with widespread rural growth. Rural-urban gaps in earnings, income, and poverty have declined slightly. And, the rural "brain drain" resulting in a loss of college-educated people from rural areas during the 1980's is no longer evident. On the other hand, rural real earnings have not improved in the 1990's, rural real household incomes have declined, and rural poverty rates are higher now than at the beginning of the decade.

All County Types Are Not Participating Equally

Also, a rural revival, if it has begun, is not occurring across all of rural America. Mining- and farming-dependent counties experienced slow population and employment growth between 1990 and 1994, reflecting reduced labor force requirements in both industries as well as depressed prices in mining. Services-dependent counties' population grew the most rapidly of any of the economic types of counties, and they had moderate employment growth as well. Much of this increase reflects the growth of resort areas for recreation and second homes, particularly in the West. Also, retirement-destination counties showed exceptionally high population and employment growth. Employment growth, especially in service jobs, in these counties tends to attract younger people as well.

Considerable regional variation exists. Some regions are growing rapidly and doing quite well; others continue to decline in population and employment opportunities. In this issue, a specially constructed regional delineation is used to assess post-1990 changes in rural America.

Data are summarized for four major regions, defined somewhat differently from the standard census regions. The West follows the standard census region, but a Central region has been carved out of the Midwest, plus Oklahoma, to show change in the States most susceptible to population loss over the past decade. Delaware and Maryland have been taken from the South and added to the North region since they are increasingly identified with economic activities of the metro sprawl of the northeast region. Wisconsin, Indiana, Michigan, and Ohio have been added to the North from the Midwest region. For simplicity of presentation, these regions have been defined as North, Central, South, and West, though alternative terms would be more descriptive. For example, the Central region could be more specifically called the Great Plains/Corn Belt.

The Rural West Shows Strong Economic Recovery

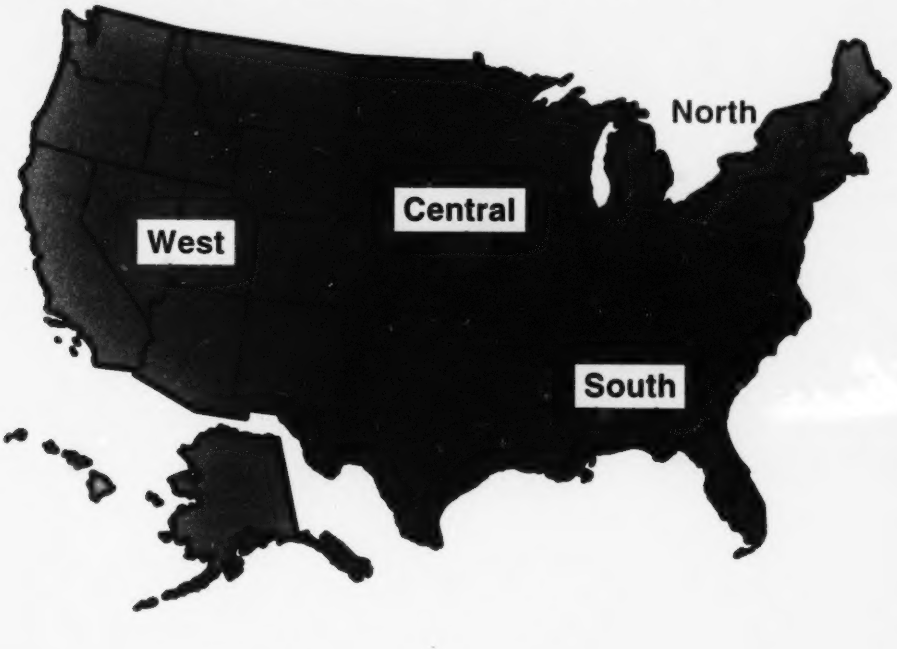
The greatest economic recovery is evident in the rural West. Although nonmetro population grew in all four regions during 1990-94, the growth rate in the nonmetro West was more than double the pace of any other nonmetro region. Migration data suggest that the rural West has been the primary beneficiary of the turnaround in rural-urban migration trends. While employment in the nonmetro West grew at almost twice the rate of other nonmetro regions, unemployment rates rose in the region. But, the increase in unemployment was confined to the Pacific coast States where defense cutbacks, lumber-related industry problems, and the effects of recent natural disasters have been substantial. The metro-nonmetro earnings gap declined in the West between 1990 and 1993, but was more a result of declining metro wages than of rising nonmetro wages.

The 1980's were particularly hard on the Central region of the United States, and rural parts of this region showed few indicators of economic recovery in the early 1990's. Farming dominates the economies of many Central region counties and continued reductions in labor requirements in agriculture have contributed to slower population and employment growth in this region. The Central region experienced the smallest 1990-94 population increase of any region, and employment grew more slowly than in nonmetro areas in general. The outmigration of college graduates has slowed, but the region is now tending to gain people with low education and poverty incomes. The rural-urban gap in earnings decreased between 1990 and 1993, but remained larger in the Central than in other regions. Nonmetro median household income in the region did not change significantly between 1989 and 1993, but the poverty rate increased.

Rural areas in the South and North generally did better than rural areas in the Central region, but not as well as the rural West. Both the North and South showed moderate population and employment growth during the early 1990's, while unemployment rates in both regions were about the same as in 1990. However, rural earnings in these regions barely kept pace with inflation between 1990 and 1993 and the rural-urban gap in earnings remained about the same. Poverty levels remained steady in the South, but increased in the North.

Regional delineation used in this issue of RCaT

Special regions help to identify rural variation in the early 1990's



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The Socioeconomic Status of the Agricultural Population Is Mixed

This issue not only reports on the social and economic characteristics of rural areas and rural people, but also addresses issues related to the socioeconomic status of the agricultural population. Farming is not synonymous with rural, but agriculture remains important as a source of income and jobs in many rural areas. Over 550 nonmetro counties are farming dependent, deriving 20 percent or more of their earned income from farming. Also, U.S. farms employed over 3 million persons, including farm operators and hired workers. The nonfarm rural economy is a critical source of employment and earnings for both of these groups since many farm operators and hired workers supplement their farm-related income and earnings with off-farm employment.

Two articles report mixed findings on the status of the agricultural population relative to other U.S. households and workers. For farm operator households, average income is almost equal to that for all U.S. households, although this favorable position is due largely to income from off-farm sources rather than farming. The average income of farm operator households (including income from their farming operations and off-farm sources) was $40,223 in 1993, about 97 percent of the national average household income. In contrast, hired farmworkers continue to be one of the most economically disadvantaged of all occupational groups, experiencing seasonal employment, low earnings, and nonfarm employment options limited by low education and skills. Full-time (working 35 hours or more per week) hired farmworkers received median weekly earnings of $250 in 1993, about 54 percent of the weekly earnings of other U.S. wage and salary workers. *[Leslie A. Whitener, 202-219-0935]*

Post-1990 indicators of nonmetro performance

Some indicators suggest the beginning of a rural revival; others suggest caution

Item	Nonmetro	Metro	Item	Nonmetro	Metro
	Percent			Percent	
Population change:			Change in median household real income:		
1980-90	2.7	11.8			
1990-94	3.9	4.9	1979-89	-7.1	5.5
			1989-93	-3.2	-8.5
Annual employment change:			Poverty rate:		
1980-90	0.9	2.0	1979	13.6	10.7
1990-94	1.6	0.8	1989	15.7	12.0
			1993	17.3	14.6
Unemployment rate:					
1980	8.0	6.9	Average annual change in transfer payments, 1989-92:		
1990	6.5	5.3			
1994	6.6	5.9	Total	5.8	5.7
			Retirement and disability	2.4	1.9
Change in average weekly real earnings:			Medical	10.8	9.7
			Income maintenance	8.9	8.1
1979-90	-12.6	-1.6	Food stamps	10.5	14.9
1990-93	0.0	-0.8	Unemployment insurance	27.2	34.2

Source: Taken from other articles and appendix tables in this issue.

Nonmetro Population Continues Post-1990 Rebound

Rural and smalltown population growth has had a surprisingly strong recovery since 1990. All types of counties are affected, and in the aggregate, the net outmigration of the 1980's appears to have shifted to inmigration of people in the 1990's.

In last year's Spring issue of *Rural Conditions and Trends*, we reported that the first post-1990 population data for counties (1990-92) revealed greater retention of people in nonmetro areas than had been true in the 1980's, a time of widespread rural economic distress. Population estimates for 1994 show this recovery is continuing.

From April 1990 to July 1994, the population of nonmetro counties grew from 50.9 million to 52.9 million, an increase of 3.9 percent. By comparison, growth during the entire decade of the 1980's was just 2.7 percent for the same counties. The recent nonmetro growth was still below that of metro areas (4.9 percent) where both immigration from abroad and natural increase from the margin of births over deaths occur at higher rates.

Only Half as Many Counties Declined in the 1990's

Although the 1980's saw some overall increase in nonmetro population, 55.5 percent of the counties declined. This seeming contradiction was possible because declines were most common among very rural and agriculturally dependent counties, which tend to have the smallest populations. Growth mostly favored larger areas that already had some urban development.

A major feature of the trend since 1990 has been a reduction in the number of declining areas. During 1990-94, 600 nonmetro counties (26.2 percent of all nonmetro counties) are estimated to have declined in population, fewer than half as many as in the 1980's. This is still a large number of counties, however. The nonmetro growth rate has been somewhat higher in counties that adjoin metro areas than in those more distant from them, as is usual. But the degree of rebound in growth since 1990 has been far greatest in the nonadjacent counties. Such areas had an absolute increase of 772,000 people during 1990-94, compared with just 134,000 over the entire decade of the 1980's. The nonmetro gain is not simply further growth on the fringes of metro areas.

Population Change Is Linked to Economic Functions

With the completion of ERS's revised typology of nonmetro counties, it is possible to determine the extent of population growth associated with various economies. All six of the economic functional types of nonmetro counties have had increased population growth (app. table 1). The farming- and mining-dependent counties that represent the bulk of the traditional rural extractive industry areas had the least growth during 1990-94 (2.3 and 2.1 percent, respectively). This result is not surprising, given the continued productivity increases and reduction of labor force requirements that occurred in both industries, along with the depressed prices and markets that beset mining during the period. The modest growth is, however, a change from the overall population decline seen in both types of counties during the 1980's.

Manufacturing-dependent counties are the largest economic type, containing about 30 percent of the nonmetro population. These areas had total growth of 3.6 percent during 1990-94, which is a little below that of the total nonmetro population (3.9 percent). Without national growth in manufacturing employment, it is difficult for such areas to grow from further development of their major sector. (U.S. manufacturing employment growth was lower during 1990-94 than in any 4-year period of the 1980's.) And given the large base population, it is also difficult for manufacturing counties to acquire other types of jobs at a pace rapid enough to provide more than modest growth. However, the manufacturing counties have shown less susceptibility to outright decline than have the more rapidly growing economic types specialized in services or government. Of the manufacturing counties, 88 percent had some population increase, even if small.

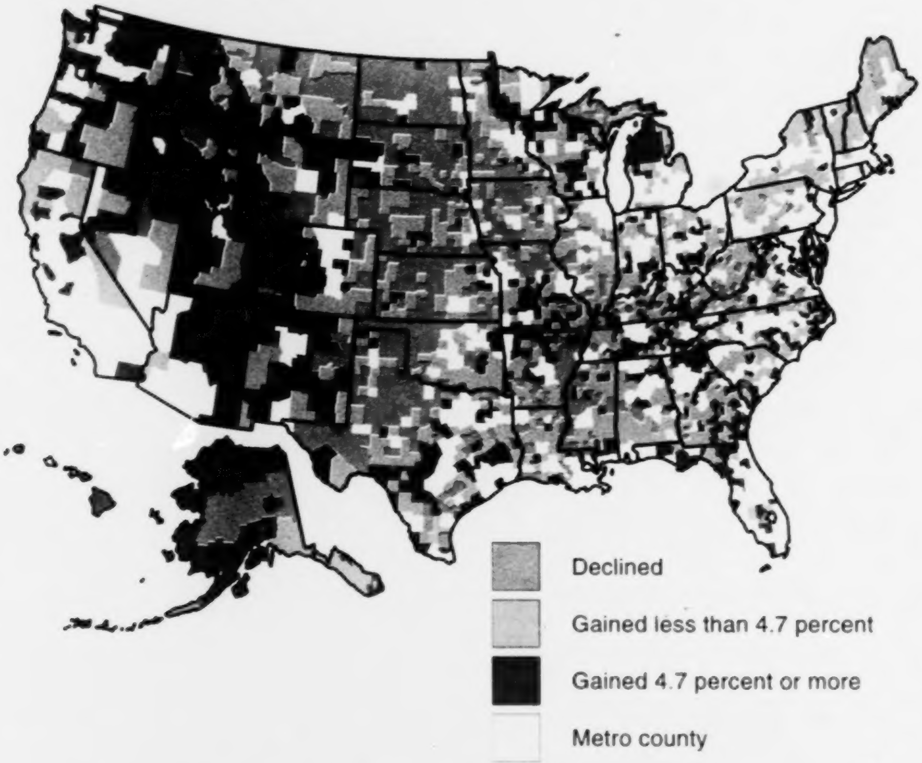
Counties with over half of their earnings income from employment in services (including retail and wholesale trade) had the most rapid growth (5.8 percent) of any of the economic types. Most of the services counties are in the West and the farm belt of the Central region. Those in the Central United States typically have small service-center cities, but have had rather limited growth, or even some decline, as their rural sections have continued to thin out. In the West, however, many of the service counties are resort areas that have boomed through their continuing attraction of urban residents for recreation and second homes. These counties contain such places as Aspen, Jackson Hole, Sedona, Sun Valley, Taos, Vail, and all of nonmetro Hawaii. The rapid population increases of the resort areas pushed the group average above the low growth of the more traditional service centers elsewhere.

Counties dominated by government employment grew 4.3 percent, slightly above the nonmetro average. One type of government employment—work in prisons—has risen rapidly. And prisoners themselves are counted in the population of the counties where they are held. Public college enrollment has continued to grow, but military base staffing has declined.

A fifth of nonmetro counties are classed as unspecialized, and are most common in a triangle bounded by Iowa, Texas, and Georgia. Many of them have healthy, diverse economies. But a fourth of them are areas of persistently high poverty and sluggish job growth. About the same number are former farming-dependent counties where diminishing farm work has left an unspecialized economic structure, but one with limited development. The unspecialized counties nonetheless had a rate of population increase during 1990-94 equal to that of the nonmetro whole (3.9 percent), illustrating how pervasive the revival of rural and smalltown population growth has been.

Nonmetro population change, 1990-94

Many western counties grew faster than the national average, while many central counties declined



Note: National population growth was 4.7 percent during 1990-94.
Source: Calculated by ERS using data from the Bureau of the Census.

Retirement and Recreation Areas Show the Most Rapid Growth

The most rapidly growing type of nonmetro areas consists of those that can be identified as retirement-destination areas, regardless of their economic type. Counties that had at least 15-percent growth of older people through inmovement during the 1980's averaged a 10.7-percent increase in total population from 1990 to 1994, 3.7 times the growth rate of nonmetro areas as a whole and more than double the metro rate. These counties also have had rapid rates of employment growth, especially in service jobs and thus tend to attract younger people as well.

Although retirement-destination counties accounted for only 8 percent of all nonmetro counties, their population gain was 28 percent of the total nonmetro increase. This rapid growth has occurred despite the fact that the 1990-2000 decade is not a prime period for retiree growth, inasmuch as persons now entering their sixties were born during the 1930's when births were at a low level. Half of the retirement counties can also be regarded independently as recreation areas, as measured by data reflecting motel, entertainment, and second home activity. Where the combination of retirement and recreation is present, an even higher population growth of 11.7 percent was observed during 1990-94.

Migration Now Producing Over Half of Nonmetro Growth

Although recent nonmetro population growth has occurred at a moderate rate of only 0.9 percent annually, this rate is more than can be supplied through the excess of births over deaths. The birth rate is too low and the advanced age distribution in many rural areas produces too many deaths for such growth. More than half of nonmetro growth since 1990 has stemmed from net inmovement of people. Some 60 percent of nonmetro counties are estimated to have had more people move in than out in this period. This is not surprising in retirement-destination or recreation areas or in counties that are on the fringes of thriving metro areas. But, it was not predicted for hundreds of manufacturing, traditional service-center, unspecialized, or farming-dependent rural counties where the Bureau of the Census has estimated at least some minimal net inmovement of people.

Regional Data Highlight the West

All four of the regions had nonmetro population growth during 1990-94. Even the Central region grew 1.4 percent, compared with a 4.0-percent decline during 1980-90. Declining areas continue to be numerous in the Great Plains (both north and south), the western Corn Belt, and the lower Mississippi Valley, as can be seen from the map. But population declines elsewhere have been infrequent and scattered.

The growth rate in the nonmetro West, however, at 9.4 percent was double the rate of the total U.S. population and of the nonmetro pace of any other region. The West received 34 percent of all U.S. nonmetro growth, although that region had only 14 percent of the nonmetro population in 1990. In the North, nonmetro growth was not rapid (3.0 percent), but was ahead of metro growth (1.7 percent) in this heavily industrial region.

What Is It All About?

Fully satisfying explanations of the increased nonmetro population growth since 1990 are not easily attainable. Changed economic conditions are quite evident, though, and must have a large influence on the trend. From the first half of 1990 to the first half of 1994, nonmetro employment rose by 5.8 percent, compared with metro growth of only 2.5 percent. In contrast, nonmetro job growth had lagged well behind metro growth in the 1980's. With metro labor markets having difficulty accommodating the growing numbers of their own working-age people, there was much less economic incentive for nonmetro workers to move to large cities after 1990, despite the lower wages that prevail in nonmetro areas. But stories of noneconomically motivated movement to nonmetro areas are also common, often couched in terms of urban flight. The pace-setting growth of retirement-destination and other high amenity areas seems to corroborate such anecdotal evidence.

In sum, there has been a clear upturn of population growth in rural and smalltown America since 1990. There is still a wide range in the rates of change, with some areas' populations still declining, most growing at a moderate pace, and others having faster growth than can be easily accommodated. Amenity-based retirement and recreation growth, and proximity-based exurbanization from metro areas are the most common sources of rapid growth. Agricultural dependence continues to be the most frequent characteristic of areas where the number of residents is decreasing. Altogether, the current nonmetro population trend resembles that of the rural turnaround years of the 1970's much more than it does that of the recession and recovery years of the 1980's. *[Calvin L. Beale, 202-219-0482, and Kenneth M. Johnson, Loyola University-Chicago, 312-508-3461].*

Regional population change, 1980-94

Nonmetro population growth higher than metro growth in the West and North

Region	Population			Change	
	1994	1990	1980	1990-94	1980-90
	Millions			Percent	
United States:					
Metro	207.5	197.8	177.0	4.9	11.8
Nonmetro	52.9	50.9	49.6	3.9	2.7
North:					
Metro	76.2	75.0	72.7	1.7	3.0
Nonmetro	12.9	12.5	12.1	3.0	3.2
Central:					
Metro	22.6	21.7	20.7	3.8	5.0
Nonmetro	10.6	10.5	10.9	1.4	-4.0
South:					
Metro	59.7	55.6	46.9	7.4	18.7
Nonmetro	21.4	20.6	20.0	3.9	2.9
West:					
Metro	48.9	45.5	36.7	7.5	24.1
Nonmetro	8.0	7.3	6.5	9.4	12.0

Note: See appendix for definition of regions, p. 45.

Source: Calculated by ERS using data from the Bureau of the Census.

Rural-Urban Migration Patterns Shift

Current Population Survey (CPS) migration data from 1990-94 indicate a dispersal of population out of urban areas into small towns and open country areas. The net rural gain has been small according to these data (0.1 percent), but it contrasts sharply with rural outflow of the late 1980's. Even more significantly, the rural "brain drain" of the 1980's has not carried over into the 1990's.

During the late 1980's, rural-urban migration patterns both reflected and enhanced rural economic disadvantages. As the rural-urban pay gap for college graduates increased, the outmigration of the better educated from rural areas further widened rural-urban differences in workforce education. Families with poverty-level incomes in the previous year tended to move into rural areas in the 1980's while those with higher incomes moved out, increasing rural poverty rates even further above urban rates. So far, both of these patterns have largely disappeared in the 1990's.

The March Current Population Survey (CPS) asks respondents where they were living a year earlier. The migration data presented here are derived by comparing past with current residence. Because migrants to other countries are not part of the CPS sample, we consider only internal U.S. migration. While they show that migration patterns in the early 1990's have been quite different from the late 1980's, the CPS-based migration statistics show much less rural net inmigration in the 1990's than Beale and Johnson's analysis in the previous article. One reason is that their migration estimates, derived by subtracting natural population increase from estimated population change, include what is undoubtedly a significant net gain from other countries. Also, the CPS data include only the noninstitutional civilian population. The institutional population, such as people in prisons, tends to be more rural than the population as a whole, reducing CPS net migration to rural areas. (People coming out of prison are counted as migrants; people going into prison are not.) These differences account, however, for only some of the discrepancy between the two net migration estimates, which are based on entirely different sources and methods.

Migration Contributed to Rural Decline During the 1980's

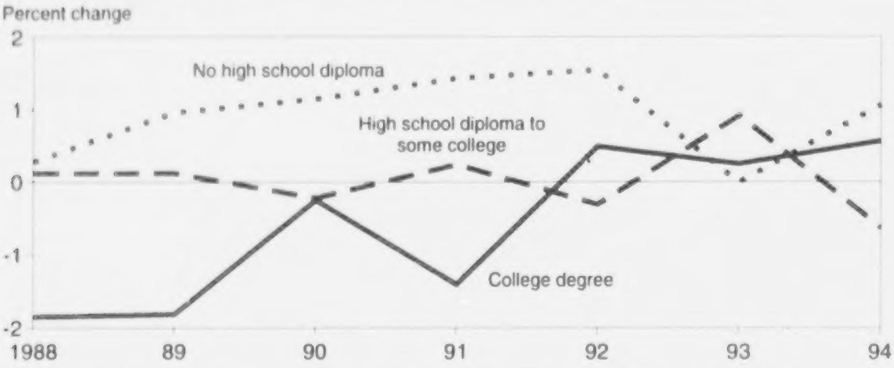
During the late 1980's (and much of the rest of that decade), there was a significant movement of population out of rural areas in search of urban opportunities. The loss was particularly great among people graduating from high school and either entering college or joining the work force (ages 18-24). Working-age adults (ages 25-54) and their children were about as likely to move into as out of rural areas. Only people of retirement age were more likely to move into than out of rural areas, and even in this case the flow was small, much less than it had been in the 1970's.

Migration during the late 1980's had little effect on the overall numbers of children and working age people in the rural population, but the people moving into rural areas were quite different from those moving out. Urban opportunities during this period were largely for the highly educated. For others, earnings fell sharply. While high school dropouts tended to move into rural areas during this period, college-educated people moved out—at a net rate of nearly 2 percent each year according to CPS data. This brain drain increased the rural-urban education gap.

Consistent with these migration differences by education, children and working-age adults who had below-poverty-level incomes in the previous year were much more likely to have moved into rural areas than out. At the same time, there was a net movement of children and adults with above-poverty-level incomes out of rural areas. Although we do not know the income levels of people after they migrated, rural poverty rates quite likely were raised substantially in the 1980's through migration.

Change in the nonmetro population ages 25-64 from net migration by education completed

Slightly more college educated moved into than left nonmetro areas since 1992



Source: Calculated by ERS using data from the March Current Population Surveys, 1988-94.

Nonmetro population change due to migration to and from metro areas

Migration patterns shift in 1990's

Population characteristic	1990-94 To metro areas	 From metro areas	 Net change	1987-89, net change
	Average annual percent			
Total	3.09	3.20	0.11	-0.23
Age:				
Children (under 18)	2.81	3.22	0.41	-0.06
School-work transition (18-24)	8.06	5.80	-2.26	-2.77
Working age (25-54)	3.39	3.60	0.21	-0.08
Retirement (55 and over)	0.93	1.50	0.58	0.38
Education completed (ages 25-54):				
No high school diploma	2.43	3.44	1.01	0.63
High school diploma	3.21	3.28	0.06	0.13
College degree	5.14	5.12	-0.02	-1.83
Poverty:				
Above poverty level—				
Children (under 18)	2.53	2.83	0.30	-0.53
Working age (25-54)	3.25	3.43	0.18	-0.25
Retirement (55 and over)	0.93	1.50	0.57	0.41
Total[1]	2.87	2.98	0.11	-0.33
Below poverty level—				
Children (under 18)	3.76	4.52	0.75	1.58
Working age (25-54)	4.35	4.76	0.41	1.13
Retirement (55 and over)	0.90	1.49	0.59	0.25
Total[1]	4.18	4.33	0.15	0.29

[1] Includes ages 18-24

Source: Calculated by ERS using data from the March Current Population Surveys, 1988-89 and 1991-94.

Rural Migration Trends Improved During the Early 1990's

The migration patterns of the 1990-94 period do not suggest a reversal of the migration patterns of the 1980's, but the rural brain drain has been much reduced. While the outflow of people in the school-work transition period remains substantial, working-age people and children are now moving into rural areas and the net inmigration of the retirement-age population has increased slightly.

Within the working-age group, a heavy outflow of college graduates is now matched by inmigrants. Although high school dropouts are continuing to shift to rural areas, the numbers are not large. Nevertheless, education statistics continue to reflect the rural education disadvantage that developed in the 1980's. In 1994, as in 1991, the proportion of the population aged 25-54 with a college degree was 28 percent in urban areas but only 16 percent in rural areas.

CPS migration data also show that rural areas are now gaining people above as well as below poverty. Among children and working-age people, however, the net inmigration rates of the poor still somewhat exceed the rates of those not in poverty.

These statistics reflect urban economic slowdowns as much as, if not more than, rural economic recovery. Urban opportunities for the better educated have lessened, particularly in California where defense industry layoffs have adversely affected managers and professionals as well as production workers, but also in major urban centers in other States, where companies have been trimming their management staffs and the finance and real estate sectors have been downsizing.

Rural West Gaining College-Educated Migrants

Although net migration rates for rural areas as a whole are small, the proportions of people moving into and out of rural America are large, particularly for the more highly educated (over 5 percent a year) and in the school-work transition ages, 18-24 (6 to 8 percent a year). Regional statistics indicate that people moving into rural areas are not necessarily moving into the same areas that other people are leaving. Only in the rural North and West is inmigration from other regions exceeding outmigration. The rural West has a small population and the migration statistics are somewhat unreliable, but it appears to be the only region to have experienced a complete migration turn-around between the 1980's and 1990's. The 1987-89 working-age migration in the rural West was negative, except for high school dropouts and poor people. In the 1990's, in contrast, college graduates and higher income people have been moving in. This appears to reflect both declining urban opportunities in California and, anecdotal evidence suggests, a decentralization of some high-tech firms into higher amenity rural areas—in Colorado and Washington, for instance.

At the other extreme, the rural Central region is still losing some population through migration to cities (and to a lesser extent other rural areas). Although the outmigration of college graduates has slowed, the region is now tending to gain people with low education and poverty incomes. In the South and the North, migration patterns were clearly different in the early 1990's from what they were in the 1980's, but the patterns do not suggest as complete a turnaround as in the rural West.

In sum, the evidence for an overall rural economic revival is weaker in the CPS rural-urban migration data than the migration data used by Beale and Johnson above. Nonetheless, it is clear from looking at migration patterns by age, education, and poverty level that migration has not been depleting rural areas of their younger, better educated workers to the extent that it did in the late 1980's. *[David A. McGranahan, 202-219-0533, and Kathleen Kassel, 202-501-7981]*

Nonmetro average annual net migration by region

Nonmetro West has largest change in migration patterns since late 1980's

Population characteristic	Average annual, 1990-94				Average annual, 1987-89			
	North	Central	South	West	North	Central	South	West
	Percent							
Total	0.38	-0.30	-0.03	0.63	-0.17	-1.00	0.17	-0.36
Working age	0.46	-0.30	0.06	0.79	-0.18	-0.54	0.36	-0.57
By education completed:								
No high school diploma	0.99	1.59	1.14	-0.23	0.30	0.00	0.51	2.79
High school diploma	0.49	-0.49	-0.24	0.83	0.20	-0.18	0.34	-0.21
College degree	0.10	-0.80	-0.44	1.21	-2.03	-2.62	0.17	-4.35
By poverty status:								
Not poor	0.46	-0.62	0.10	0.94	-0.42	-0.60	0.34	-1.23
Poor	0.59	2.24	-0.22	-0.17	2.35	-0.11	0.41	4.07

Note: Net migration with respect to both metro areas and nonmetro areas in other regions. See appendix for definition of regions, p. 45.
Source: Calculated by ERS using data from the March Current Population Surveys, 1988-89 and 1991-94.

Rural Employment Growth Quickened in 1994, as Unemployment Continued to Fall

From 1990 to 1994, rural employment grew at an annual rate of 1.6 percent, twice the rate of rural employment growth in the 1980's. Rural employment grew fastest in the West and in retirement-destination counties. Rural unemployment fell between 1993 and 1994, returning to approximately its 1990 level. Unemployment remained well above 1990 levels in the rural West, and in mining-dependent and retirement-destination counties, however.

Rural employment grew 2.8 percent from 1993 to 1994—the fastest annual rate of rural employment growth since 1977-78, according to county-level estimates from the Bureau of Labor Statistics (BLS). Rural employment growth outpaced urban growth for the fourth consecutive year, although the difference was small. Rural employment gains between 1993 and 1994 were strongest in farming-dependent (3.8 percent) and retirement-destination (3.7 percent) counties. Employment in manufacturing- and service-dependent, as well as persistent poverty, counties grew at close to the national rural average, ranging from 2.6 to 3.2 percent. Employment in mining-dependent counties grew most slowly at 2.1 percent.

The year also saw a decline in unemployment in rural areas, from 7.4 percent in 1993 to 6.6 percent in 1994—nearly equal to its 1990 level. Urban unemployment also declined in 1994, but remained more than half a point above its 1990 level. Unemployment declined in all rural county types between 1993 and 1994. However, some types lagged the national economic recovery—unemployment in mining-dependent counties at 8.5 percent, retirement-destination counties at 7.2 percent, and persistent poverty counties at 8.2 percent remained well above the rural national average in 1994.

Rural Employment Growth Outpaces Urban Growth in 1990's

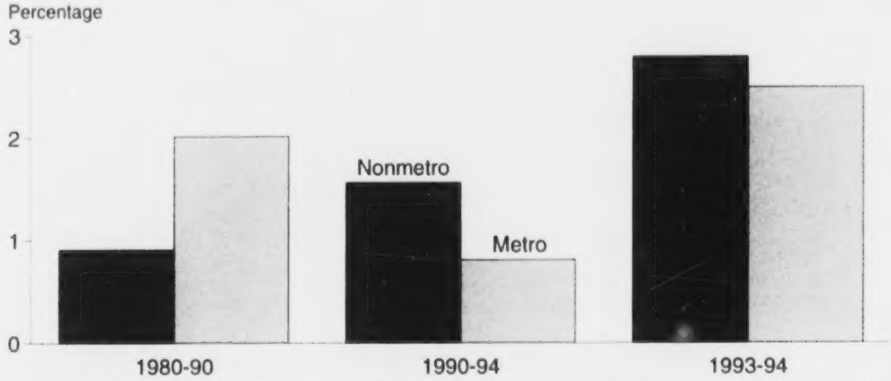
The annual employment growth rate for rural areas, 1.6 percent, was twice the 0.8-percent growth rate for urban areas between 1990 and 1994. This difference represents a sharp contrast with the 1980's, when average annual urban employment growth for the decade as a whole was more than double the rural rate. This change reflects both a moderate increase in rural employment growth (up from 0.9 percent annually during the 1980's) and a sharp decrease in the urban growth rate (down from 2.0 percent annually during the 1980's).

Rural Unemployment Rate Falls to Its 1990 Level

Unemployment in rural areas declined from 7.4 percent in 1993 to 6.6 percent in 1994, falling nearly to its 1990 level. The urban unemployment rate also declined, but did not return to its 1990 rate, narrowing the rural-urban gap in unemployment. As noted in the Fall 1994 issue of *Rural Conditions and Trends* (Vol. 5, No. 2, pp. 8-11), the BLS Local Area Unemployment Statistics used here have consistently shown higher rural than urban unemployment rates in recent years. The Current Population Survey (CPS) indicated that the rural rate fell below the urban rate in 1992 and remained there in 1993. This suggests that rural unemployment rates reported by BLS may be too high and may underestimate the extent of recent improvements in rural economic conditions.

Average annual employment growth

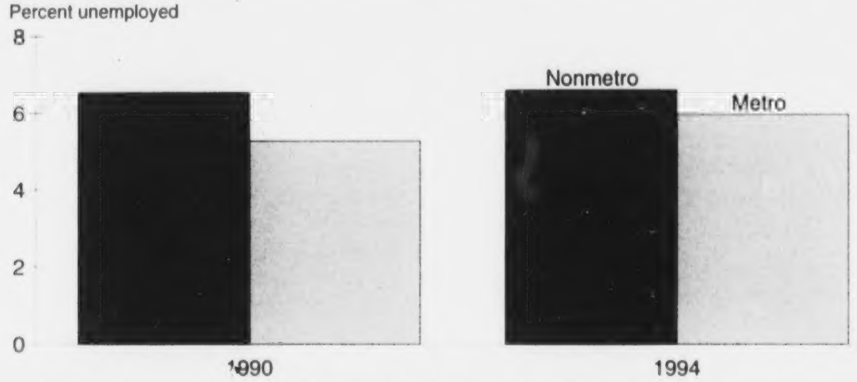
After lagging during the 1980's, nonmetro employment growth outpaced metro growth in the early 1990's



Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Unemployment rate

The nonmetro unemployment rate in 1994 was almost the same as in 1990, while the metro unemployment rate was over half a percentage point higher in 1994 than in 1990



Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Rural Employment Grew in Most County Types

Job gains occurred across all types of rural areas during the early 1990's, with retirement-destination and service-dependent counties growing the fastest, at 2.5 percent and 2.1 percent annual rates, respectively. Annual employment growth in retirement-destination counties was down from 3.1 percent in the 1980's, but still above the growth rates for other county types. Average 1990-94 annual growth rates for farming- and manufacturing-dependent and persistent poverty counties were close to the average rural growth rate, while mining-dependent counties lagged with only 0.4-percent annual growth.

Changes in Unemployment Across County Types

Unemployment rates in 1994 declined for all major county types, and rates for several types returned to about the level of 1990. Unemployment rates in manufacturing-dependent, services-dependent, and persistent poverty counties all fell to their 1990 levels, although unemployment in persistent poverty counties remained well above the rates for most county types.

However, the unemployment rates in mining-dependent and retirement-destination counties increased a full point between 1990 and 1994, and unemployment in farming-dependent counties increased by almost half a point. Rising unemployment in mining- and farming-dependent counties reflects increased productivity and reduced labor demand in both industries, as well as depressed markets and low prices in mining. Unemployment rates rose in retirement-destination counties despite their relatively rapid employment growth between 1990 and 1994. There were large population increases in these areas, particularly in the West (where this rise in unemployment was concentrated), and inmigration of labor force participants to these areas may have outpaced the growth of employment.

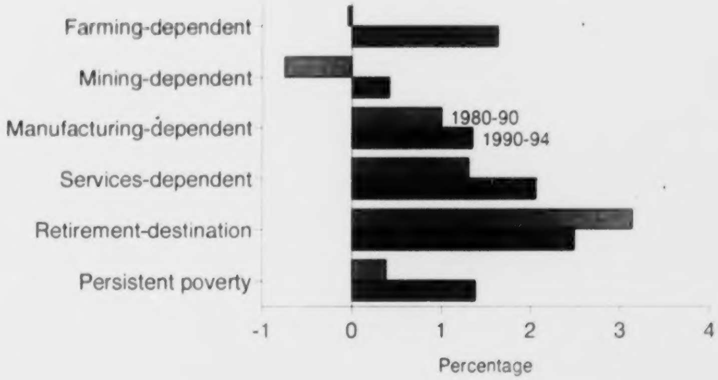
Employment Picture Is Mixed in Regions

Employment grew in all rural regions between 1990 and 1994. The West showed the most rapid growth. The 1990-94 growth rate in the rural West, at 2.7 percent annually, was more than a percentage point above the national rural growth rate, while employment growth in the other three rural regions was less than 1.5 percent annually. Employment in the urban West grew by only 0.8 percent annually, less than one-third the rate in the rural West. The divergence between urban and rural employment growth rates nationally during this period can be explained almost entirely by rapid growth in the rural West and slow growth in the urban North. These findings are consistent with the report by Beale and Johnson in this *RCaT* issue of vigorous growth in western service and recreation centers such as Aspen and Taos. It is also consistent with the finding by McGranahan and Kassel that the rural West has been the primary beneficiary of the apparent turnaround in rural-urban migration trends and has been experiencing net inmigration of working-age people during the 1990's.

Between 1990 and 1994, rural unemployment rates remained stable in the South and North and decreased in the Central region. However, unemployment rates rose in the rural West despite rapid employment growth. The recent employment growth in the rural West has been concentrated in areas of relatively low initial unemployment and has been primarily associated with inmigration rather than declines in local unemployment. At the same time, other parts of the West have suffered persistent economic distress, resulting in slow growth and high unemployment in these areas. The 1990-94 increase in unemployment in the rural West was confined to the Pacific States, where defense cutbacks and problems in the logging and lumber industries have been substantial, while employment grew throughout the West and grew most rapidly in the Mountain States. *[Lorin Kusmin, 202-219-0550]*

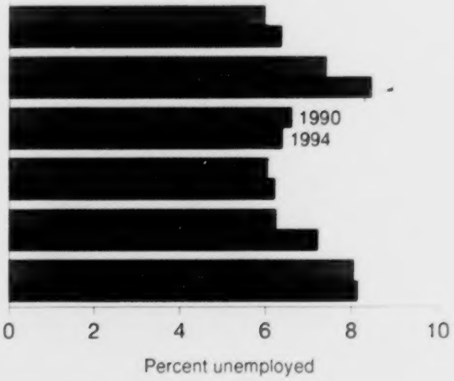
Average annual nonmetro employment growth by county type

Services-dependent and retirement-destination counties had the most rapid employment growth in both the 1980's and early 1990's



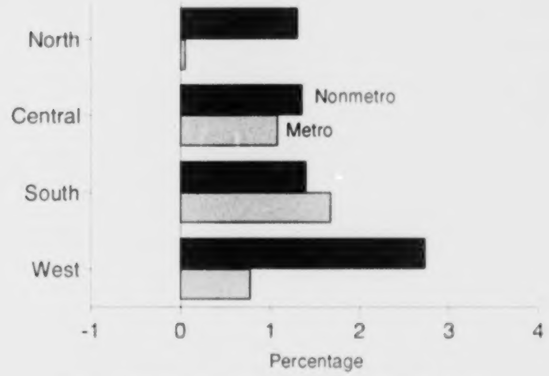
Nonmetro unemployment rate by county type

Unemployment rose in mining-dependent and retirement-destination counties between 1990 and 1994



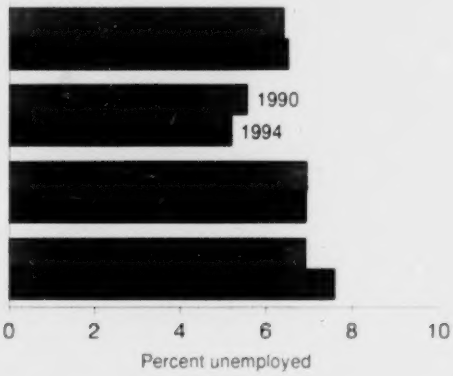
Average annual employment growth by region, 1990-94

Employment growth was brisk in the nonmetro West, while slow in the metro North and metro West



Nonmetro unemployment rate by region

Unemployment rose in the West but fell in the Central region between 1990 and 1994



Note: See appendix for definition of regions, p. 45.

Source: All graphs on this page calculated by ERS using data from the Bureau of Labor Statistics.

Rural Earnings Holding Steady in the Early 1990's

Average weekly earnings for rural wage and salary workers were $380 in 1993, significantly lower than the $488 figure for urban workers. After adjusting for inflation, average rural pay was unchanged between 1990 and 1993, while average urban pay fell slightly. Stable rural pay during the early 1990's contrasts with the experience of the 1980's, when rural earnings growth lagged both urban earnings growth and the rate of inflation. Despite this encouraging change, in 1993 the weekly earnings of 30 percent of rural full-time workers were too low to bring a family of four above the poverty level, even if they worked all 52 weeks during the year.

In 1993, average weekly earnings for rural wage and salary workers were $380, before taxes and other deductions. This figure was unchanged from 1990 earnings (in 1993 dollars). The recent stability in average rural pay is a welcome contrast to the steep decline in inflation-adjusted earnings during the previous decade. Rural weekly earnings fell by 12.6 percent between 1979 and 1990, from $435 to $380 (1993 dollars).

Average weekly earnings for urban workers were $488 in 1993, $108 above the rural figure. The pay gap between rural and urban workers was down slightly from $112 in 1990, because urban earnings fell a little between 1990 and 1993 while rural earnings were unchanged. Although the earnings gap associated with rural residence remained a substantial 28 percent, the slight closing of the rural earnings gap between 1990 and 1993 represented a second welcome departure from the experience of the 1980's. Between 1979 and 1990, the rural pay gap grew from $65 to $112 (1993 dollars).

The rural gap in weekly earnings is almost entirely due to the lower hourly pay received by rural workers and not to a shorter work week. In 1993, rural workers averaged 38.2 hours per week at their jobs, nearly identical to the 38.5-hour average urban work week. By contrast, the $9.60 average rural hourly wage was $2.63 below the $12.23 average urban wage. Similarly, the rural pay gap rose during the 1980's because rural hourly wages fell more precipitously than urban wages, not because the rural work week fell relative to the urban work week.

Many Rural Workers Hold Low-Pay Jobs

There is considerable concern that low-pay jobs have proliferated, as jobs paying well enough to support a middle class living standard have become more scarce. A natural criterion for identifying low-pay jobs is whether workers' weekly earnings are so low that year-round employment (52 weeks) is insufficient to bring a family of four above the poverty line. By this criterion, 42.9 percent of rural workers held low-pay jobs in 1993, substantially higher than the corresponding urban share of 32.3 percent. The share of rural workers in low-pay jobs was essentially constant between 1990 and 1993, but rose by 9 percentage points between 1979 and 1990. Even among full-time workers, 30 percent of rural and 20 percent of urban workers held low-pay jobs in 1993.

Female, young and old, low-educated, and minority workers were particularly likely to hold low-pay jobs (app. table 4). Some of these workers were members of families that had additional earners or other sources of income, and their low pay may not have indicated economic hardship. Teenagers, for example, often live with their parents and voluntarily seek part-time work. It is potentially worrisome that 38.3 percent of rural workers receiving such low pay in 1993 were prime-age adults (ages 25-59) who worked full-time. This share grew substantially between 1979 and 1990, but was unchanged between 1990 and 1993.

Average weekly hours worked, hourly wages, and weekly earnings, 1993

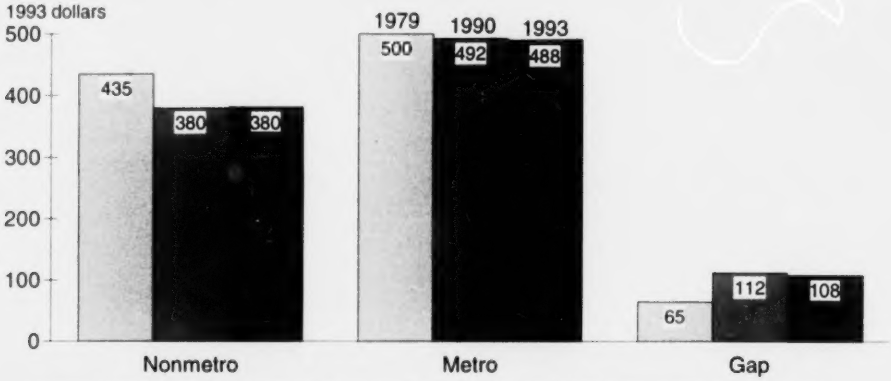
The metro-nonmetro pay gap can not be blamed on a shorter work week

Item	Weekly hours	Hourly wage	Weekly earnings
	Hours	—— 1993 dollars ——	
United States	38.4	11.69	466
Metro	38.5	12.23	488
Nonmetro	38.2	9.60	380
Metro-nonmetro gap	.3	2.63	108

Note: Usual hours and earnings of wage and salary workers on their main job.
Source: Calculated by ERS using data from the 1993 Current Population Survey earnings files.

Average weekly earnings and metro-nonmetro earnings gap

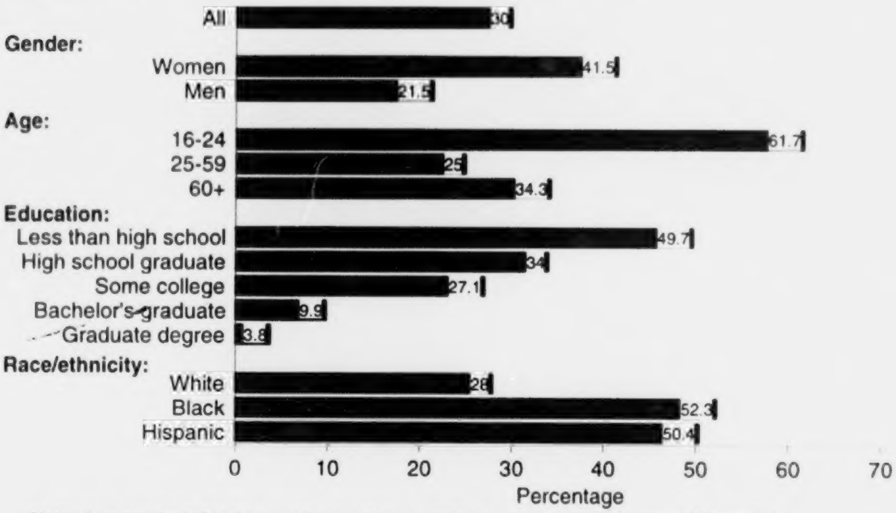
Nonmetro wages stabilized between 1990 and 1993



Source: Calculated by ERS using data from the 1979, 1990, and 1993 Current Population Survey earnings files.

Share of full-time nonmetro workers holding low-pay jobs, 1993

Female, young, low-education, and minority workers are most at risk



Note: Low pay is defined as weekly earnings such that year-round employment (52 weeks) would not raise a family of four above the poverty level.
Source: Calculated by ERS using data from the 1993 Current Population Survey earnings file.

Rural Pay Gap Down Slightly for Most Education Groups and Regions

During the 1980's rural pay particularly lagged urban pay for college-educated workers. Many rural areas also experienced a strong outflow of well-educated youths that was probably due, at least in part, to limited employment opportunities for highly skilled workers. Between 1990 and 1993, the rural pay gap fell modestly for college-educated workers, providing some indication that labor market pressures for a rural brain drain may have eased.

In 1993, the rural pay gap was highest in the Central region ($118 per week) and lowest in the South ($87). Between 1990 and 1993, rural earnings improved relative to urban in the West, Central, and South, but deteriorated slightly in the North. As with the recent decline in the rural pay gap overall, declines in the rural gap for regions and education groups were more the product of declining urban wages than of rising rural wages. It remains to be seen whether continued economic expansion since 1993 has finally begun to fatten rural pay checks. *[Paul Swaim, 202-219-0553]*

The metro-nonmetro gap in average weekly earnings by education and region

The metro-nonmetro pay gap narrowed after 1990 for most groups

Item	1979			1990			1993		
	Metro	Non-metro	Metro-nonmetro gap	Metro	Non-metro	Metro-nonmetro gap	Metro	Non-metro	Metro-nonmetro gap
	1993 dollars								
All workers	500	435	65	492	380	112	488	380	108
Education:									
Less than high school	372	337	35	293	255	38	269	252	17
High school	465	430	35	409	357	52	405	350	55
Some college	503	450	53	480	394	86	450	381	69
Bachelor's degree	662	573	90	676	533	143	670	546	124
Graduate degree	782	691	91	846	681	165	871	710	161
Region:									
North	495	449	46	507	403	104	504	398	106
Central	522	424	98	489	362	127	479	361	118
South	472	403	69	455	365	90	454	367	87
West	531	489	42	514	405	109	511	410	101

Note: See appendix for definition of regions, p. 45.

Source: Calculated by ERS using data from the Current Population Survey earnings files for 1979, 1990, and 1993.

Trend Toward Rising Inequality Among Rural Workers Appears to Have Eased

The variation of weekly earnings among rural workers, like average earnings, was basically stable between 1990 and 1993. Rural earnings inequality, as measured by percentile comparisons, even eased a bit. The 10th percentile wage, which is the wage such that 10 percent of all workers earn less than that amount and 90 percent earn more, can serve as a benchmark for low earnings, while the 50th percentile wage can represent typical earnings and the 90th percentile high earnings. An increase in the 90th percentile wage relative to the 50th, or increases of the 90th or 50th percentile wages relative to the 10th, indicate increased earnings inequality.

Among rural workers, the ratio of the 90th percentile weekly earnings level ($700) to the 10th percentile level ($106) was 6.61 in 1993, down slightly from 6.74 in 1990. By contrast, this measure of earnings inequality increased quite strongly from 6.15 to 6.74, between 1979 and 1990, when pay fell most rapidly for low-wage workers. Earnings inequality grew even more strongly among urban workers between 1979 and 1990. Urban inequality also continued to increase during 1990-93, when earnings rose for workers at the 90th percentile of the urban earnings distribution, but fell for less well paid workers. In that period, the rural pay gap declined modestly for workers at or below the 75th percentile, but continued to increase for the most highly paid (90th percentile) workers.

Usual weekly earnings at select percentiles

The rise in pay inequality among nonmetro workers appears to have stopped after 1990

	Metro			Nonmetro		
Item	1979	1990	1993	1979	1990	1993
			1993 dollars			
Percentiles:						
10th	149	137	131	130	105	106
25th	279	247	240	239	199	200
50th	438	414	400	378	328	320
75th	651	659	643	577	497	500
90th	896	928	950	797	708	700
Ratios:						
90:10	6.00	6.79	7.28	6.15	6.74	6.61
90:50	2.05	2.24	2.38	2.11	2.16	2.19
50:10	2.93	3.03	3.07	2.92	3.12	3.02

Note: Percentiles are points in the distribution of workers from the lowest to highest paid. For example, 10 percent of workers earn less than the 10th percentile wage and 90 percent of workers earn more, while 90 percent of workers earn less than the 90th percentile wage and only 10 percent earn more.

Source: Calculated by ERS using data from the Current Population Survey earnings files for 1979, 1990, and 1993.

Fewer Rural than Urban Workers Receive Employment Fringe Benefits

Rural workers are less likely to obtain health insurance or participate in a retirement plan through their job than urban workers, primarily because fewer rural workers are employed full-time by large firms. The proportion of rural workers receiving either type of fringe benefit has not changed since 1990.

The fringe benefits provided by employers for their workers are the most important source of health insurance for persons under age 65 and a major means of saving for retirement. Data from the March Current Population Surveys (CPS) indicate that rural workers are less likely than urban workers to obtain health insurance or participate in a retirement plan through their job, largely due to urban-rural differences in employer and worker characteristics. The proportion of rural workers receiving either type of fringe benefit did not change between 1990 and 1993. CPS estimates do not distinguish between fringe benefits provided by employers and unions, but other information indicates that most workers received benefits through employers.

Full-time Employees of Large Employers Had Best Access

Large employers are more likely to offer fringe benefits than small employers, in part because the financial situation of large employers is more stable and economies of scale tend to reduce the cost of benefits per worker. Employers are also more likely to offer fringe benefits to full-time workers than part-time or temporary workers. In this analysis, civilian workers aged 18-64 years were classified into four employment categories by firm size (based on the longest job during the year) and annual work experience. Firm size was determined by the size of their own business in the case of the self-employed and by the size of government units in the case of public employees. In 1993, fewer rural than urban workers (41 versus 47 percent) were year-round full-time employees of large firms with good access to fringe benefits. In contrast, more rural than urban workers (37 versus 30 percent) were employed by small firms and consequently had poor access to benefits. The differences in employment reflect the smaller scale of business operations in rural than urban communities.

Fewer Rural Workers Received Health Insurance Coverage

Most employers who offer health insurance to their workers also provide coverage for the family dependents of workers. Some workers are consequently covered through another family member's job rather than their own job. In 1993, fewer rural than urban workers (50 versus 55 percent) received health insurance through their own job. However, similar proportions (15 versus 14 percent) were covered through another family member's job. The proportion of rural workers covered through their own job did not change between 1990 and 1993, but the proportion covered through another family member's job declined. As a result, the proportion of rural workers with job-related coverage fell from 68 to 65 percent. The urban-rural gap in coverage was unchanged during the period because the proportion of urban workers with job-related coverage also fell from 72 to 69 percent.

Workers in employment categories providing good access to fringe benefits were far more likely to receive health insurance through their job than other workers. In 1993, the proportion covered through their own job varied from 79 percent of full-time employees of large firms to about 15 percent of part-time and part-year employees of small firms. Large-firm workers were equally likely to be covered in urban and rural areas. However, small-firm workers were less likely to be covered in rural areas. The difference in coverage was due in part to the higher level of self-employment among rural than urban small-firm workers (34 versus 30 percent). Most of the self-employed had no permanent employees and were ineligible to buy employer group coverage, although some bought coverage at higher individual rates outside the workplace. Despite the lower level of coverage among rural than urban small-firm workers, nearly three-fourths of the overall difference in coverage between urban and rural workers was due to the disproportionate concentration of rural workers in employment categories providing poor access to fringe benefits.

The proportion of large-firm workers covered through their own job changed little during 1990-93, but coverage rose among small-firm workers, particularly in rural areas. The rise may have been related to the growing popularity of health insurance purchasing cooperatives, which provide coverage at lower cost by pooling many small employers together to negotiate group discounts from health insurers.

Workers aged 18-64 by employer size and annual work experience

Fewer nonmetro workers were employed full-time by large firms

	Nonmetro		Metro	
Employment category	1990	1993	1990	1993
		Thousands		
Number of workers	26,207	26,297	97,871	100,739
		Percent		
Large firms:[1]				
Year-round, full-time	40.3*	41.3*	48.5	47.3
Part-time, part-year	24.5*	22.1	23.4	22.8
Small firms:[2]				
Year-round, full-time	19.3*	19.9*	15.5	16.9
Part-time, part-year	15.9*	16.8*	12.6	13.1

[1] With 25 or more workers.

[2] With 1-24 workers.

* Difference between metro and nonmetro estimates is significant, $p<0.05$.

Source: Calculated by ERS from March 1991 and 1994 Current Population Surveys.

Job-related health insurance coverage of workers aged 18-64

Fewer nonmetro workers received coverage through their own job

	Covered through own job				Covered through family member's job			
	Nonmetro		Metro		Nonmetro		Metro	
Employment category	1990	1993	1990	1993	1990	1993	1990	1993
				Percent of workers				
All workers	49.4*	50.3*	56.1	55.0	18.3*	15.0	16.1	14.4
Large firms:[1]								
Year-round, full-time	80.8	79.4	81.6	79.5	8.4*	6.6	7.3	6.4
Part-time, part-year	35.7	35.2	35.0	34.9	25.6	22.0	26.2	22.8
Small firms:[2]								
Year-round, full-time	33.4*	38.1*	41.6	43.9	19.1	15.1	17.1	15.5
Part-time, part-year	10.6*	13.3*	14.9	15.9	31.2	26.3	30.4	27.1

[1] With 25 or more workers.

[2] With 1-24 workers.

* Difference between metro and nonmetro estimates is significant, $p<0.05$.

Source: Calculated by ERS using data from March 1991 and 1994 Current Population Surveys.

Workers in employment categories providing poor access to fringe benefits were more likely to be covered through another family member's job than other workers. About 27 percent of part-time and part-year employees of small firms received coverage through another family member's job in 1993, in contrast to only 6 percent of full-time employees of large firms. There was no difference between urban and rural areas in the proportion of workers who obtained coverage as family dependents.

Fewer Rural than Urban Workers Participate in Retirement Plans

Only about 40 percent of all workers participated in a pension plan or other retirement plan operated by their employer or union in 1993. Plan participation was slightly lower among rural workers (38 percent) than urban workers (41 percent). There was no significant change in participation between 1990 and 1993 in urban or rural areas, despite growing public concern about the need to supplement Social Security payments to maintain an adequate income during old age. The CPS does not distinguish different types of retirement plans or indicate whether employers made contributions on behalf of their employees.

The level of retirement plan participation was much higher among workers in employment categories providing good access to fringe benefits than among other workers. In 1993, plan participation varied from 65 percent of full-time employees of large firms to 7 percent of part-time and part-year employees of small firms. There was little difference in participation between urban and rural workers within the same employment category. Most of the overall difference in participation between urban and rural workers was consequently due to the disproportionate concentration of rural workers in employment categories providing poor access to fringe benefits.

Health Insurance and Retirement Plan Coverage Varied By Region

The proportion of workers with fringe benefits varied by region as well as urban-rural residence. In 1993, the proportion receiving health insurance through their own job was highest in the urban North and Central regions and lowest in the rural Central and Western regions. The low level of coverage in the rural Central region was due to two factors. The small-firm sector was relatively larger than elsewhere, employing 43 percent of rural Central workers in contrast to 33-40 percent of rural workers in other regions. Rural small-firm workers were also more likely to be self-employed in the Central region (39 percent) than in other regions (32-34 percent), further reducing access to coverage. The regional differences in employment reflected the greater prevalence of family farms in the rural Midwest than other parts of the country. Approximately 7 percent of all rural workers in the Central region were self-employed in primary production (including agriculture, forestry, and fisheries), in contrast to only 2-3 percent of rural workers elsewhere.

Job-related retirement coverage of workers aged 18-64

Fewer nonmetro workers participated in retirement plans

	Nonmetro		Metro	
Employment category	1990	1993	1990	1993
	Percent of workers who participated in a retirement plan			
All workers	37.6*	37.7*	42.1	41.5
Large firms:[1]				
Year-round, full-time	67.2	65.2	66.6	65.1
Part-time, part-year	28.6	25.1	26.5	25.2
Small firms:[2]				
Year-round, full-time	14.1*	20.7*	17.8	24.0
Part-time, part-year	5.2	6.6	6.5	7.6

[1] With 25 or more employees.
[2] With 1-24 employees.

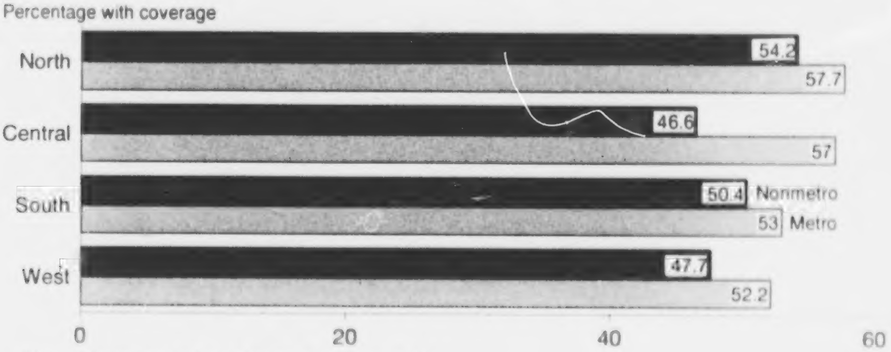
* Difference between metro and nonmetro estimates is significant, $p<.05$.

Source: Calculated by ERS using data from the March 1991 and 1994 Current Population Surveys.

The proportion of workers participating in a retirement plan was highest in the urban North and Central regions and lowest in the rural South and Central regions. The different economic patterns in the rural Midwest were therefore associated with low worker participation in retirement plans as well as poorer access to health insurance through employment. *[Paul D. Frenzen, 202-501-7925]*

Workers ages 18-64 receiving health insurance through own job, 1993

Nonmetro workers in the Central region had the lowest coverage rate

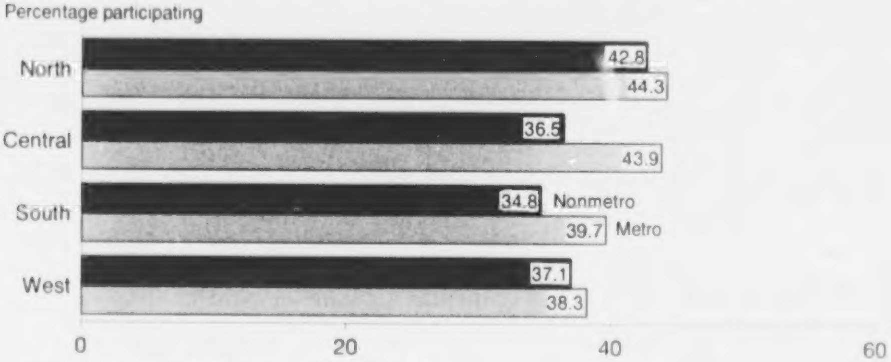


Note: See appendix for definition of regions, p. 45.

Source: Calculated by ERS using data from the March 1994 Current Population Survey.

Workers ages 18-64 participating in retirement plan through own job, 1993

Participation was lowest among nonmetro workers in the Central and South regions



Note: See appendix for definition of regions, p. 45.

Source: Calculated by ERS using data from the March 1994 Current Population Survey.

Nonmetro Income Declining

Inflation-adjusted income of the average nonmetro household declined from 1989 to 1993. Rural median household income is lowest in the South, and rural minorities continue to have very low incomes.

Inflation-adjusted median household income declined 3.2 percent in nonmetro America during 1989-93, falling from $26,088 to $25,256 (1993 dollars). This decline continued the trend of generally stagnant-to-declining real incomes experienced by rural households since the late 1970's. In metro areas, real median household income declined even more abruptly, falling 8.5 percent during 1989-93 to $33,212. As a result, the gap between nonmetro and metro incomes closed somewhat, although the median income of nonmetro households was still 24 percent less than that of metro households.

Income Lowest for Nonmetro Minorities

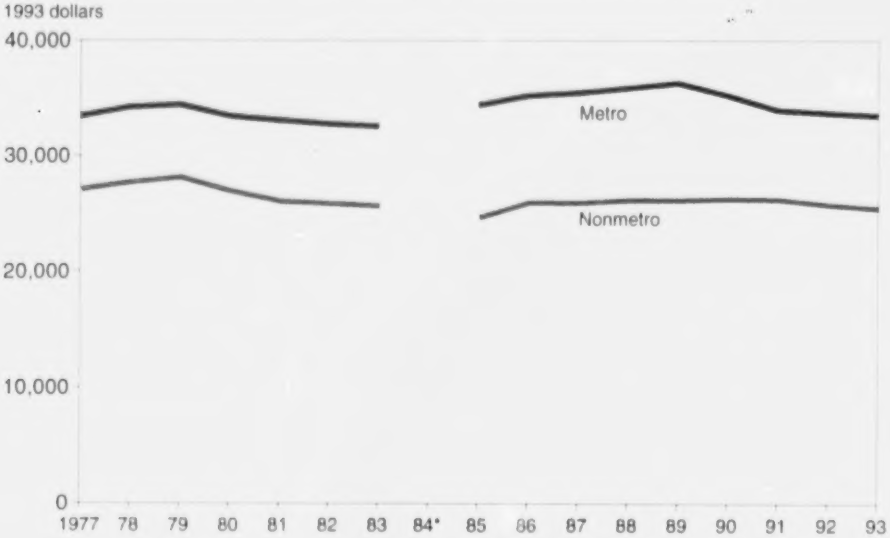
In 1993, the median income of nonmetro Black households was only $14,183—just over half that of nonmetro non-Hispanic Whites and almost a third lower than that of metro Blacks. The economic disadvantage associated with Hispanic ethnicity, as measured by median household income, was roughly half the disadvantage experienced by Blacks. However, the median size of nonmetro Hispanic households was three persons, while the median size of both Black and non-Hispanic White households was two. Thus, the actual economic disadvantage experienced by Hispanics is likely somewhat greater than that indicated by comparison of median household incomes which do not adjust for household size. During 1989-93, the real median household income of nonmetro non-Hispanic Whites declined 5.4 percent while the nonmetro minorities' incomes remained about constant.

Nonmetro Incomes Highest in the North, Lowest in the South

The North enjoyed the highest nonmetro income with a median 12.1 percent above the national nonmetro median. The nonmetro South had the lowest median income, 9.8 percent below the national nonmetro median and 25.4 percent below the median in the metro South. Analysis of household income by age of householder confirmed that these differences cannot be accounted for by differences in the proportion of elderly among regions or between metro and nonmetro areas. *[Mark Nord, 202-219-0554]*

Median real household income

Median nonmetro household income has stagnated or declined in most years since 1977



*The Census Bureau changed from a 1970- to a 1980-Census-based designation of metro and nonmetro areas in 1984. Metro and nonmetro household income estimates were not published that year, and pre-1984 income estimates are not directly comparable to post-1984 estimates.

Source: U.S. Bureau of the Census, Consumer Income, P-60 series, 1977-93.

Median household income by race and ethnicity

Nonmetro minorities experience substantial economic disadvantage

Race/ethnicity	Household income, 1993		Nonmetro-metro gap[1]	Real change, 1989-93	
	Nonmetro	Metro		Nonmetro	Metro
	Dollars			Percent	
United States	25,256	33,212	24.0	-3.2*	-8.5*
Non-Hispanic White	26,463	37,330	29.1	-5.4*	-6.2*
Black	14,183	20,601	31.2	0.3	-9.6*
Hispanic	20,246	23,231	12.8	0.5	-10.8*

[1] Percent by which nonmetro income is lower than metro.

*Statistically significant, p<0.01.

Source: Calculated by ERS using data from the March 1990 and 1994 Current Population Surveys.

Median household income by region

Nonmetro income was highest in the North region, lowest in the South

Region[1]	Household income, 1993		Nonmetro-metro gap[2]	Real change, 1989-93	
	Nonmetro	Metro		Nonmetro	Metro
	Dollars			Percent	
United States	25,256	33,212	24.0	-3.2*	-8.5*
North	28,306	34,382	17.7	-4.0	-10.6*
Central	25,437	33,725	24.6	-5.4	-8.0*
South	22,769	30,539	25.4	-1.5	-6.1*
West	27,791	35,062	20.7	-0.1	-7.0*

[1] See appendix for definitions of regions, p. 45.

[2] Percent by which nonmetro income is lower than metro.

*Statistically significant, p<0.01.

Source: Calculated by ERS using data from the March 1990 and 1994 Current Population Surveys.

Rural Poverty Rate Increases

Rural poverty increased from 1989 to 1993. The poverty rate is still highest in the South, although increases were greater in the other three regions. Rural minorities continue to face especially severe economic disadvantage.

The poverty rate in nonmetro America stood at 17.3 percent in 1993, a statistically significant increase of 1.5 percentage points since 1989. During the same period, the metro poverty rate increased even more sharply, rising 2.6 percentage points to 14.6 percent. Thus, although the poverty rate is still higher in nonmetro than in metro areas, the gap has closed somewhat.

Rural Minorities Are Especially Disadvantaged Economically

The poverty rate among nonmetro Blacks in 1993 was 40.6 percent, almost three times that of nonmetro non-Hispanic Whites (14.1 percent) and well above that of metro Blacks (31.7 percent). The economic disadvantage of nonmetro Hispanics was also substantial, evidenced by a poverty rate of 33.1 percent. Despite the higher incidence of poverty among minorities, 70.7 percent of the rural poor were non-Hispanic Whites. In the early 1990's, poverty increased 2.0 percentage points among non-Hispanic Whites, while the changes observed among Blacks and Hispanics (+0.7 and -1.3 percentage points, respectively) were not statistically significant.

Almost One-Quarter of the Children in Rural America Live in Poverty

In 1993, almost 3.7 million rural children under the age of 18 lived in families with incomes below the poverty level. The poverty rate among rural children was 24.3 percent, up sharply from 22.0 percent in 1989. Half of the rural poor children lived in families headed by women, and the poverty rate among children in such families was 55.7 percent. Among nonmetro Black children, who face the combined economic vulnerabilities of rurality, race, and childhood, the poverty rate was 53.5 percent.

More Nonmetro Persons Living Alone and in Female-Headed Families

Since at least 1969, the proportion of the nonmetro population living in husband-wife families has slowly decreased, while the proportion living alone and in single-parent families (almost all headed by women) has increased. This trend continued in the early 1990's (app. table 5). From 1989 to 1993, the share of the nonmetro population in husband-wife families decreased 2 percentage points to 71.4 percent, the share in families headed by women increased by 1.2 percentage points to 13.1 percent, and the share living alone increased 0.9 percentage point to 12.9 percent. Since the poverty rate is lowest in husband-wife families, this shift tended to increase the nonmetro poverty rate somewhat, accounting for about a third of the total change in the poverty rate. The larger share of the change in the poverty rate, however, was due to increases in the poverty rates of all family types.

Employment Status of the Rural Poor

More than 60 percent of the nonmetro poor were in families with at least one working member or, if living alone, were employed at least part of the year. Moreover, 22 percent were in families with one or more full-time-full-year workers or were full-time-full-year workers living alone (app. table 6). The poverty rate among families with full-time-full-year workers and full-time-full-year workers living alone was substantially higher in nonmetro (5.9 percent) than in metro areas (3.9 percent), reflecting the higher proportion of low-wage jobs in rural areas.

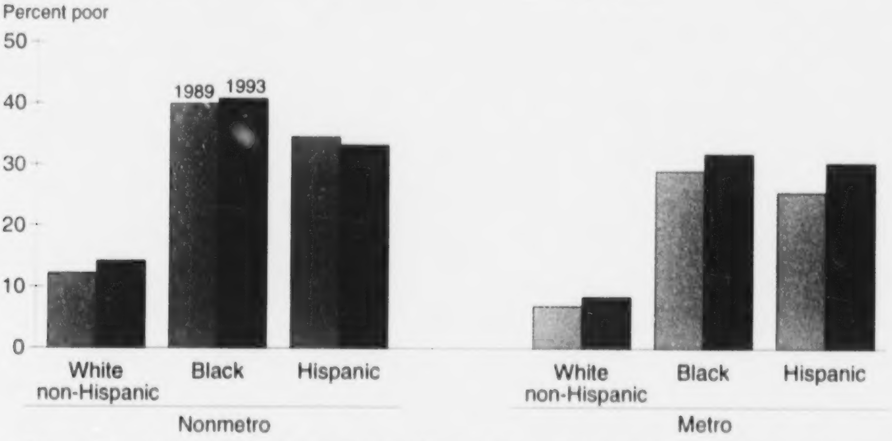
About two-thirds of the increase in nonmetro poverty in the early 1990's resulted from increasing poverty among families and unrelated individuals without a full-time-full-year worker. The remaining third of the increase resulted from a decline in the proportion of full-time-full-year workers and a corresponding increase in the more poverty-vulnerable categories. Among families and unrelated individuals with only part-time or part-year workers (17.5 percent of the nonmetro population), the poverty rate increased from 35.6 percent in 1989 to 37.9 percent in 1993. The majority of these workers (62.5 percent) wanted to work more but were unable to find additional employment. In families and unrelated individuals with no member employed (19 percent of the population, of which 11 percent had no member of working age), the poverty rate increased from 30.8 percent in 1989 to 35.5 percent in 1993. Among families with at least one full-time-full-year worker and unrelated individuals fully employed, on the other hand, the poverty rate remained about constant at 5.9 percent.

Rural Poverty Still Highest in the South, But Increasing Elsewhere

Almost half of the nonmetro poor (47.6 percent) lived in the South. The poverty rate in the nonmetro South, at just over 20 percent, was substantially higher than that in the rest of rural America. Nonmetro poverty rates were 16.9 percent in the West, 16.0 percent in the Central region, and 13.7 percent in the North. The last rate was slightly below the U.S. metro average. Rural poverty in the early 1990's increased primarily in regions other than the South. The increases in the other three regions, all statistically significant, ranged from 2.0 percentage points in the West to 2.6 percentage points in the Central region. The increase in the South was less than 0.5 percentage point and was not statistically significant. *[Mark Nord, 202-219-0554]*

Poverty rate for persons by race and ethnicity

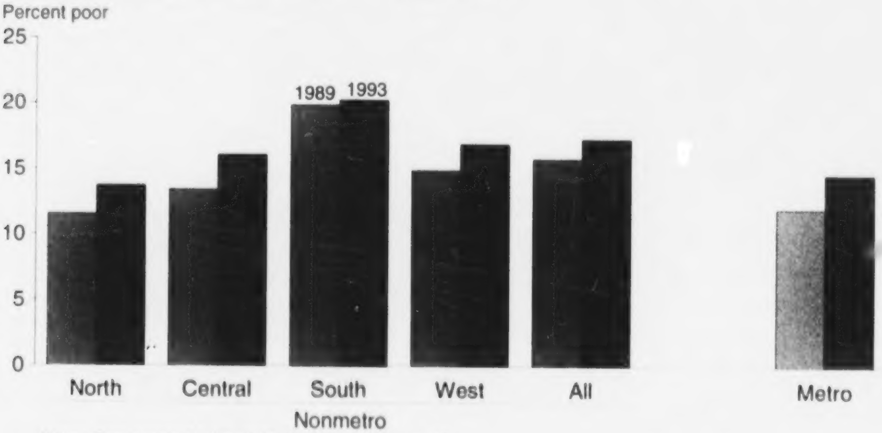
Nonmetro minorities experience the highest poverty rates; nonmetro poverty higher than metro in each racial-ethnic category



Source: Calculated by ERS using data from the March 1990 and 1994 Current Population Surveys.

Poverty rate for persons by region

Nonmetro poverty rates increased between 1989 and 1993 except in the South; the increase was less in nonmetro than in metro areas



Note: See appendix for definition of regions, p. 45.
Source: Calculated by ERS using data from the March 1990 and 1994 Current Population Surveys.

Rural Dependence on Government Transfer Payments Increases

Government transfers to individuals, largely Social Security, medicare, and medicaid, increased to 20.8 percent of nonmetro income in 1992, up from 18 percent in 1989. Food stamps and unemployment insurance bolster income during recessions and decrease as the economy recovers. But, they had not started to recede by 1992, the first year of recovery after the 1990-91 recession.

Government transfers to individuals in nonmetro areas grew from $2,747 per capita (in 1992 dollars) in 1989 to $3,254 per capita in 1992. Transfers to metro residents also grew, from $2,713 to $3,201. Transfers are not received by all individuals in nonmetro or metro areas, so per capita amounts do not represent what each person receives. Per capita amounts show the level of dependence of the local economy on transfers.

Although per capita transfers were about the same in nonmetro and metro areas in both 1989 and 1992, transfer payments accounted for a much larger share of nonmetro income. In 1992, government transfers accounted for 20.8 percent of nonmetro income compared with 15.1 percent of metro income. One out of every five dollars of nonmetro income coming from government transfers indicates that those transfers play an important role in supporting the rural economy.

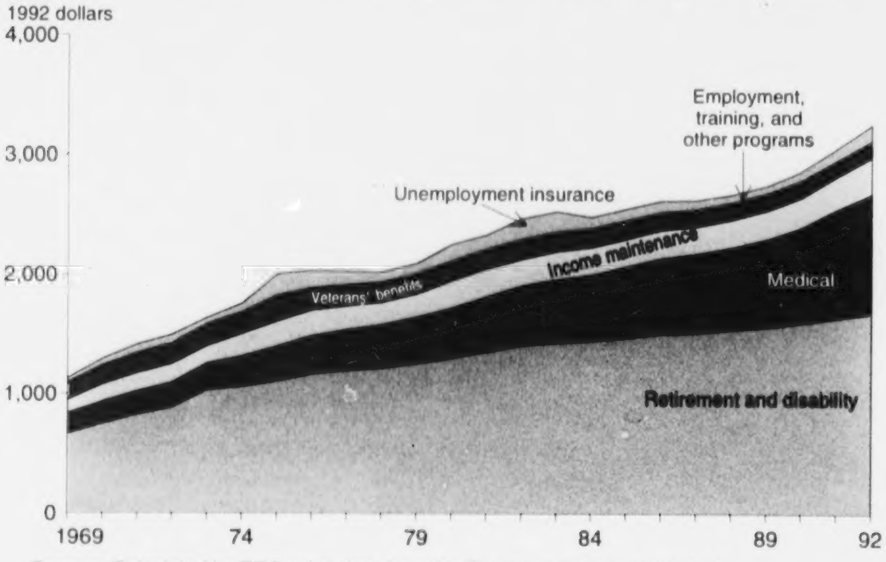
Eighty Percent of Transfers Are from Retirement, Disability, and Medical Programs

Transfers come from various sources that pay widely varying amounts per capita. Retirement and disability programs contributed just over half of nonmetro and metro transfers in 1992. These payments go predominantly to retired persons, most of whom are 65 or older. The remainder supports the disabled and their dependents and survivors of deceased workers.

Medical programs (medicare, medicaid, and the CHAMPUS program for dependents of military personnel) were the next largest source of transfer income, accounting for just over 30 percent of nonmetro and metro transfers. Combined, retirement and disability and medical programs accounted for about 82 percent of government transfers. The remaining transfers to nonmetro areas came from income maintenance programs (9.6 percent), unemployment insurance (4.2), veterans' benefits (2.8), and employment, training, and other programs (1.2). See appendix table 7 for metro transfers by program.

Nonmetro real transfer payments per capita by source

Medical payments have increased faster than inflation, pushing up transfer payments; fast growth of unemployment insurance payments during recessions is also evident

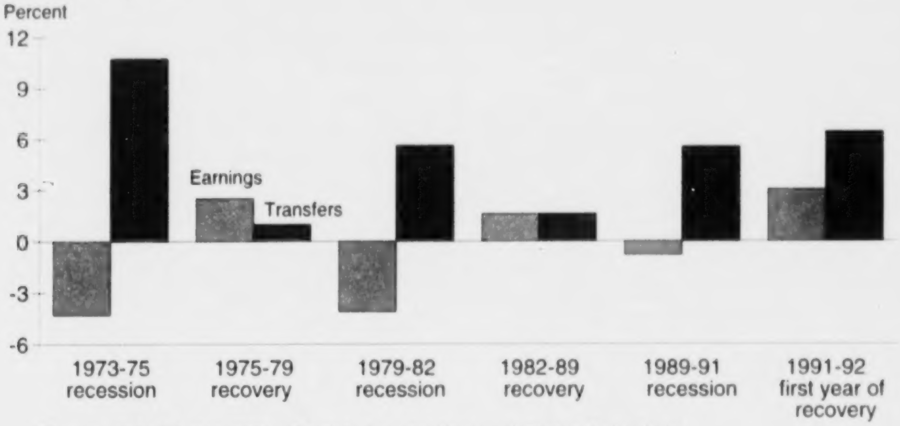


Source: Calculated by ERS using data from the Bureau of Economic Analysis.

The retirement and disability programs account for such a large share of transfer payments because of their large numbers of recipients and high average monthly benefits compared with other programs. For example, the Social Security program had over 40 million recipients nationwide in December 1992 with average monthly payments of $579. Among the income maintenance programs, Supplemental Security Income had 5.6 million recipients with average monthly payments of $358 and the Aid to Families with Dependent Children program had about 14 million recipients with average monthly payments of $134. Unemployment insurance claims were paid to 9.2 million recipients in 1992 with average weekly payments of $174 (approximately equating to a $700 average monthly payment).

Average annual change in nonmetro real earnings and transfers per capita

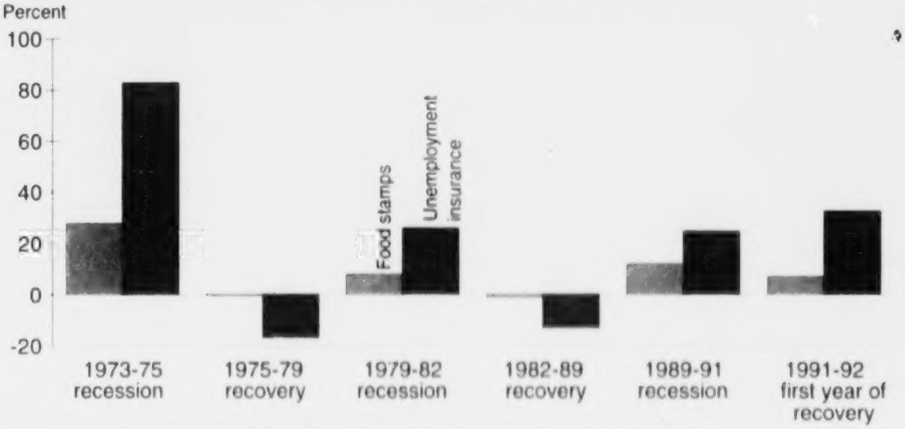
Government transfers have a countercyclical effect, growing during recessions while earnings fall



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Average annual change in nonmetro real food stamp and unemployment insurance payments per capita

Food stamps and unemployment insurance are the most countercyclical transfers, growing very rapidly during recessions and falling as the economy recovers



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Food Stamps and Unemployment Insurance Continued to Increase in 1992

Transfer payments buffer the effects of recession on local economies because they bring State and Federal dollars into local areas. Many transfer programs' benefits are indexed to inflation, so their payments keep up with inflation even when recessions dampen earnings growth. Also, programs like unemployment insurance and food stamps, which have eligibility requirements tied to economic conditions (loss of a job or low income) rather than personal characteristics (being retired or disabled or having dependent children), deliver benefits to increasing numbers of recipients during recessions.

During the last recession, 1989-91, per capita food stamp and unemployment insurance benefits increased at annual rates of 12 and 25 percent in nonmetro areas. Benefits from those programs had also increased rapidly during the 1973-75 and 1979-82 recessions. During the years of recovery and growth following the two earlier recessionary periods, per capita food stamp and unemployment insurance benefits in nonmetro areas fell as the number of unemployed workers declined and more households earned enough income to leave the food stamp rolls. The continued increase in both food stamp and unemployment insurance payments during 1992 was consistent with the slow employment growth and the high unemployment rate during that first year of recovery (as shown in the Spring 1993 issue of *Rural Conditions and Trends*,Vol. 4, No. 1, pp. 6-9). When transfers data for 1993 become available later this year, they are very likely to indicate that food stamp and unemployment insurance benefits in nonmetro areas have moderated as employment growth picked up.

Transfers Are an Important Source of Income in All Regions

Nonmetro trends in transfer payment levels and share of personal income in all four regions are quite similar to the national nonmetro trend (app. table 8). Per capita transfers were slightly lower in the nonmetro West than in the other three regions, and the nonmetro South depends on transfers for a slightly larger share of personal income than the other nonmetro regions do. Per capita income in the nonmetro South is at least $1,500 lower than per capita income in any of the other nonmetro regions, so the same amount of transfers per capita as in the North and Central regions accounts for a larger share of the nonmetro South's per capita income.

The countercyclical nature of transfers, especially food stamps and unemployment insurance, was also evident in all nonmetro regions. In nonmetro areas in all regions, transfer payments per capita grew quickly during recession years while earnings per capita fell. The 1973-75 and 1979-82 recessions hit nonmetro earnings much harder than the 1989-91 recession, especially in the Central region. One hopeful sign for nonmetro areas in the Central region is their nearly 5-percent growth in earnings per capita during 1992. If earnings have continued to increase more quickly in the nonmetro Central, food stamps and unemployment insurance per capita will probably subside more quickly there than in the other nonmetro regions.

Retirement-Destination and Persistent Poverty Counties

Retirement-destination counties had per capita transfers of $3,722 in 1992, nearly $500 more than per capita transfers in nonmetro areas nationwide (app. table 8). Also, a higher share of transfers to individuals in retirement-destination counties comes from retirement and disability programs, 58 percent compared with 52 percent of all nonmetro transfers. As the group name indicates, these counties attracted more older migrants than other nonmetro counties during the 1980's, and many of those migrants bring retirement program benefits with them.

Persistent poverty counties also had higher per capita transfers than all nonmetro counties did, but only by $192 ($3,446 compared with $3,254). Higher shares of transfer payments to individuals in persistent poverty counties came from medical (32.8 percent) and income maintenance (15.6 percent) programs (compared with 30.4 and 9.6 percent in all nonmetro counties). Still, retirement and disability programs comprise about half (49.3 percent) of the transfers in persistent poverty counties, as they do in all nonmetro counties.

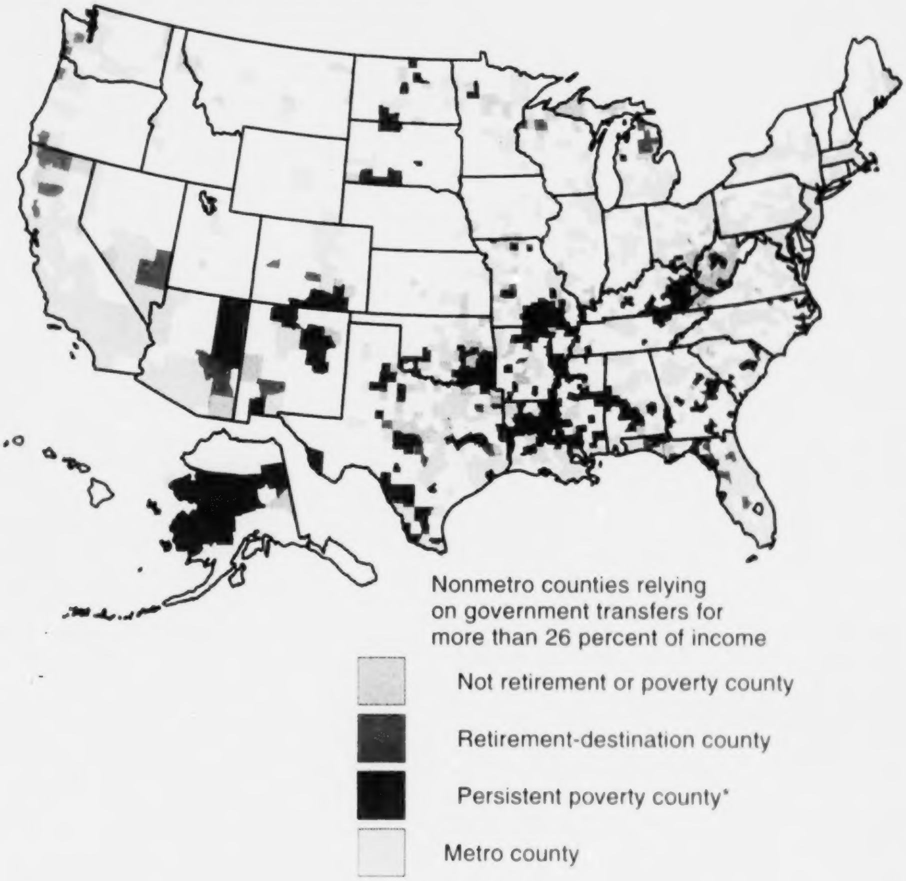
While the retirement-destination counties have higher per capita transfers than persistent poverty counties, they do not depend on transfers for as high a share of income as the persistent poverty counties do. Transfers accounted for 21 percent of income in the retirement-destination counties and for 26 percent of income in the persistent poverty counties. As one would expect in a group of counties that has had a fifth or more of its residents living below the poverty line for 30 years, per capita income is low in persistent poverty counties. Transfer payments account for more of the persistent poverty counties' per capita income because their per capita income is so low.

Many Counties Greatly Depend on Government Transfer Payments

There are 532 nonmetro counties that depended upon transfers for more than 26 percent of personal income in 1992. With the group of persistently poor counties averaging 26 percent of income from transfers, it is not surprising that the majority of highly dependent counties are in the persistently poor group. A few more of the highly dependent counties are retirement-destination counties. The high-dependency counties that are neither persistent poverty nor retirement-destination counties are clustered near those types. Most States have at least one nonmetro county in the high-dependency category. *[Linda M. Ghelfi, 202-219-0484]*

Nonmetro counties with high dependency on government transfer payments by county type, 1992

Persistent poverty accounts for the majority of nonmetro counties that are highly dependent on transfer payments


Nonmetro counties relying on government transfers for more than 26 percent of income
▨ Not retirement or poverty county
▨ Retirement-destination county
■ Persistent poverty county*
□ Metro county

*18 of these counties are classified as both persistent poverty and retirement-destination counties.

Source: Calculated by ERS using data from the Bureau of Economic Analysis and revised ERS county typology codes.

Farm Operator Household Income Compares Favorably with All U.S. Households

Average farm operator household income approached the same level as the average for all U.S. households in the early 1990's. However, the typical farm operator household receives its income from various sources, and most is not from the farm. On average, off-farm wages and salaries account for almost half the total for farm operator households.

The average income of farm operator households compares favorably with that of other U.S. households. According to the most recent estimates from the U.S. Department of Agriculture's Farm Costs and Returns Survey (see Data Sources and Definitions), farm operator households averaged $40,223 in income from their farming operations and off-farm sources in 1993. Average farm operator household income was 97 percent of the national average of $41,428.

In this article, we use averages instead of medians so that we can examine income components. However, any single number such as an average or median masks the diversity that exists among individual households in levels and sources of income. For example, 18.8 percent of farm operator households reported a household income of less than $10,000 in 1993, as did 14.3 percent of all U.S. households. At the other extreme, about 25 percent of farm operator households reported household income of $50,000 or more. Approximately 29 percent of all U.S. households had incomes in that range. The range of incomes across farm households can be partially explained by looking at the variety of sources of income and characteristics of the farms and their operators. The information presented in this article represents the households of senior operators of farms organized as individual operations, partnerships, and family corporations.

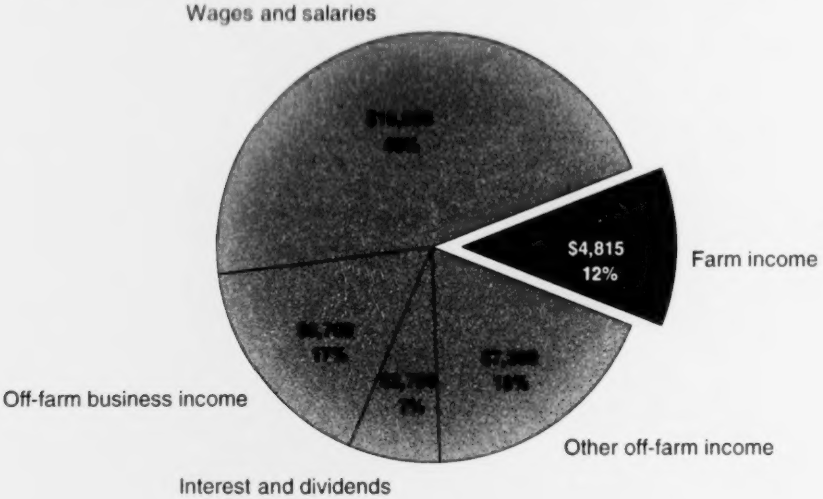
Farm Operator Households Combine Income from Different Sources

The total income of farm operator households includes income from both farm and nonfarm sources. Consistent with the Census Bureau's definition of self-employment income, we define farm income to the household as net cash farm income less depreciation (adjusted for the share received by the senior operator household in the case of multiple-household farms). We also include the income that all farm household members receive from all other sources; using only the farm-related income would understate the farm household's income for comparison with other households. Most farm households receive some off-farm income, including off-farm wages and salaries, the net income of any off-farm businesses, interest and dividends, and any other off-farm cash income received by household members. In 1993, 88 percent of average household income came from off-farm sources. Farm operator households averaged $4,815 from farming, while off-farm income averaged $35,408. The low average from farming is heavily influenced by the 1.5 million households associated with farms with sales under $50,000.

According to the 1993 data, the 73.6 percent of households operating these fairly small, noncommercial farms on average experienced negative returns to farming and solely depended on income from off-farm sources (app. table 9). Nonfarm wage and salary jobs were the most important source of off-farm income. On the other hand, for households operating larger, commercial farms with sales of more than $50,000, farm income made an important positive contribution to total household income, accounting for half of the average commercial farm operator household's total income. The average income of $53,124 for commercial farm households in 1993 was significantly higher than the average of $35,597 for households associated with smaller farms and for U.S. households overall.

Sources of income for the average farm operator household, 1993

Because so many farm households depend on off-farm jobs and income, average farm income only accounts for 12 percent of total household income



Source: Calculated by ERS using data from the Farm Costs and Returns Survey.

Average income to farm operator households[1]

Average farm household income comes from various sources and most is not from the farm

Item	1990	1991	1992	1993
	Dollars per operator household			
Farm income to household[2]	5,742	5,810	7,180	4,815
Self-employment farm income	4,973	4,458	5,172	3,623
Other farm income to household	768	1,352	2,008	1,192
Plus: Total off-farm income	33,265	31,638	35,731	35,408
Income from wages, salaries, and non-farm businesses	24,778	23,551	27,022	25,215
Income from interest, dividends, transfer payments, etc.	8,487	8,086	8,709	10,194
Equals:				
Farm operator household income	39,007	37,447	42,911	40,223

[1] Data for 1990 are expanded to represent the farm operator households surveyed in USDA's Farm Costs and Returns Survey; data for 1991-93 are expanded to represent the total number of farms and ranches in the contiguous United States. Totals may not add due to rounding.

[2] Farm income to the household equals self-employment income plus amounts that operators pay themselves and family members to work on the farm, income from renting out acreage (1990-92), and net income from a farm business other than the one being surveyed. In 1993, income from renting out acreage is included in income from interest, dividends, transfer payments, etc.

Source: Calculated by ERS using data from the Farm Costs and Returns Survey.

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Household Income and Dependence on Off-farm Income Vary by Operator Characteristics

As with all U.S. households, the average income of farm operator households varies with the age and education of the household head (app. table 9). Senior farm operators, are, on average, slightly older (54.2 years) than the average householder (48.2 years), reflecting the higher percentage of senior operators that are over the age of 65. Because farm operators do not generally have a required retirement age, older operators often choose to reduce their farming activities and farm on a part-time basis, thus delaying full retirement. This is reflected in the composition of these operators' household income, as 96 percent was from nonfarm sources. Twenty-seven percent of the operators associated with households in the 1993 survey were 65 years or older, compared with 21 percent of all U.S. householders, but the average incomes of both groups were comparable at $27,214 and $25,965. Farm operator households headed by younger operators also had incomes comparable to the U.S. average for that age group.

Average household income also tends to increase with the level of education attained by the household head. While only 15.2 percent of the senior farm operators surveyed reported obtaining a 4-year college degree, compared with 23.7 percent of all U.S. householders, their average household income was comparable to that of similarly educated U.S. householders. Households of farm operators who reported some college or a college education averaged incomes above the average level for households in the survey, while those with high school or less had below-average incomes. These differences related mostly to differences in average off-farm income, which increased consistently with increasing education.

Household Income and Dependence on Off-farm Income also Vary by Farm Characteristics

Approximately 45 percent of operators reported farm or ranch work as their major occupation in 1993 (app. table 9). Their average income was lower than the average for farm households overall, and their share of income from off-farm sources was lower. The comparatively low average household income for operators reporting farm or ranch work as their major occupation relates to comparatively low off-farm income rather than low farm income. Average income from farming for these households was $13,945, while operators reporting other or retired occupations lost income from farming. However, income from off-farm sources more than offset negative farm incomes for those two groups. Among the occupational categories, operators in the "other" category had the highest average household income, solely derived from off-farm sources.

Differences in dependence on off-farm income also occur by commodity specialization because different types of farms have differing labor and management requirements. Households associated with dairy farms, for example, were the least dependent on off-farm income; dairy farms are labor-intensive, limiting the hours that operators can devote to off-farm jobs. Almost half of farm operator households had beef, hog, or sheep farms, which are generally less labor intensive, and, on average, off-farm income accounted for virtually all of these households' income in 1993. While dependence on off-farm income varied among farm types (except for beef, hog, or sheep farms and other livestock farms), average total household income was generally consistent, with the exception of farms classified in the other crop category, which had significantly higher average total household income than beef, hog, or sheep farms.

While operator occupation and farm commodity specialization are related to the household's mix of farm and off-farm activities, farm size is also an important factor. Almost three-quarters of all operator households were associated with small, noncommercial farms with sales of less than $50,000. They had, on average, negative farm income, and off-farm income accounting for 108 percent of total income. Larger farms, on the other hand, depended on off-farm income for only half of their total household income. Dependence on off-farm income decreased with farm size, as measured by sales. Households associated with farms with sales of $500,000 and more had an average total household income of $153,328, and only 21 percent of that was from off-farm sources.

Over 91 percent of farm operator households surveyed were associated with farms legally organized as individual proprietorships, but households associated with farms that were partnerships (6.1 percent) or family corporations (2.6 percent) had significantly higher levels of household income, reflecting differences in farm size. Households in all three groups had, on average, similar levels of off-farm income. But off-farm income represented only 54 percent of total household income for operator households associated with family corporations, and only 71 percent for operator households associated with partnerships, compared with 91 percent for households associated with individual proprietorships. *[Judith Z. Kalbacher, 202-219-0592, and Susan E. Bentley, 202-219-0931]*

About the estimates..

Estimates discussed in this article and presented in appendix table 9 are constructed from survey responses, and estimates based on an expanded sample differ from what would have occurred if a complete enumeration had been taken. However, a measure of sampling variability is available from survey results. The relative standard error (RSE) is the standard error of the estimate represented as a percentage of the estimate. We question the reliability of an estimate when the RSE exceeds 25 percent, and data users should use caution when interpreting items reported with RSE's of this magnitude or higher. The standard error of the estimate can also be utilized to evaluate the statistical differences between groups. Although t-statistics are not presented here, the discussion emphasizes the comparison between groups only when estimates were significantly different at the 95-percent level.

Hired Farmworkers Continue to Have Low Earnings and Educational Levels

The number of hired farmworkers continues to decline and neither weekly wages nor educational levels improved between 1990 and 1993. Workers' lack of formal education limits their access to higher paying, more stable nonfarm jobs.

Hired farmworkers are an important part of the agricultural work force. Typically they account for over a third of this work force (farm operators and unpaid workers account for the other two-thirds) and provide an important supply of labor when demand exceeds that which can be supplied by farm operators and their families. Hired farmworkers have fairly well maintained their share of the agricultural work force since 1990, but their farm employment opportunities continue to decline. Also, neither their weekly earnings nor educational levels have improved since 1990.

An annual average of 803,000 persons age 15 and over were employed per week as hired farmworkers in 1993, down 9 percent since 1990, according to data from the Current Population Survey (CPS) microdata earnings file. However, the CPS is based on a survey of households and may undercount workers who live in unconventional living quarters. Studies suggest that farmworkers, especially many Hispanics, may be more likely than other workers to live in nonstandard housing units. Hired farmworkers include persons who reported their principal activity during the week as farm managers, supervisors of farmworkers, nursery workers, and farmworkers engaged in planting, cultivating, and harvesting crops or attending to livestock.

Hired Farmworkers Complete Less Schooling than Other Workers

Hired farmworkers are more likely than other wage and salary workers to be young, male, Hispanic, and to have only limited education (app. table 10). Although some hired farmwork jobs such as farm manager may require higher levels of education, most are low skill and do not require formal education or previous work experience. Unlike many other occupations, lack of education does not hinder entry to farmwork. Over half (56 percent) of all hired farmworkers had not completed high school compared with only 14 percent of all wage and salary workers. In fact, 16 percent of hired farmworkers had completed less than 5 years of schooling, compared with only 1 percent of all other wage and salary workers.

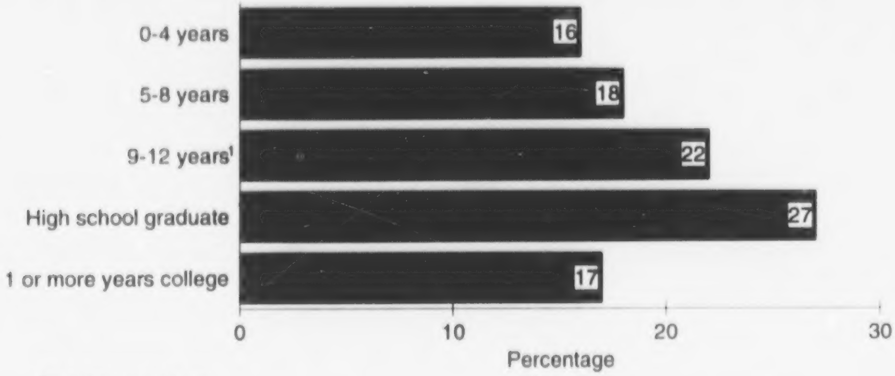
Hired Farmworker Earnings Continue to Be Lower

Hired farmworkers continue to earn significantly less than most other workers. Those working full time (35 or more hours per week) earned about 54 percent as much per week as all other full-time wage and salary workers in 1993. Hired farmworkers received median weekly earnings of $250 in 1993 compared with $460 for all other wage and salary workers. Hired farmworkers ranked near the bottom of major occupational groups, along with private household and other service (except protective) workers, and other agriculture, forestry, and fishing workers. The weekly earnings of hired farmworkers did not improve between 1990 and 1993 after adjusting for the effects of inflation.

Hired farmwork is more seasonal and less steady than that of most other wage and salary occupations, and the annual earnings of hired farmworkers are much lower. Many hired farmworkers seek nonfarm work to supplement their earnings. However, because they have low education levels and few skills, they are often unable to compete for higher wage nonfarm jobs.

Distribution of hired farmworkers by schooling completed, 1993

More than half of hired farmworkers have not graduated from high school

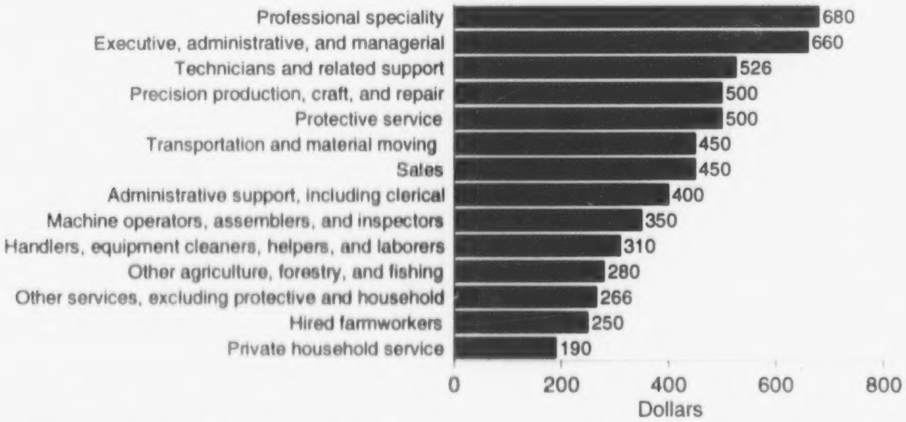


[1] But did not graduate.

Source: Calculated by ERS using data from the 1993 Current Population Survey earnings file.

Median weekly earnings of full-time wage and salary workers, 1993

Hired farmworkers rank near bottom of major occupational groups



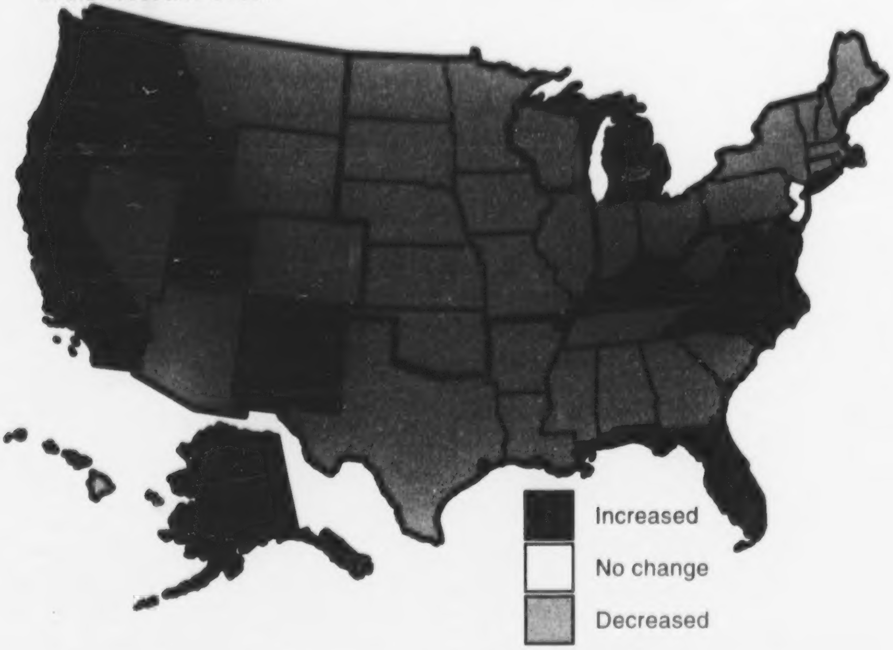
Source: Calculated by ERS using data from the 1993 Current Population Survey earnings file.

Regional Data Show Changing Labor Patterns

Labor expenditures for hired and contract workers are often used as an indicator of farm labor use. According to data from the Census of Agriculture, total U.S. hired farm labor expenditures decreased by about 3 percent between 1987 and 1992, after adjusting for the effects of inflation. Although the total hired farm labor expenditures decreased for the United States, one State (New Jersey) had no change, while 12 States had increased labor expenditures ranging from 1 to 14 percent (Alaska, California, Florida, Idaho, Kentucky, Michigan, New Mexico, North Carolina, Oregon, Utah, Virginia, and Washington). Much of this increase in expenditures occurred in States with more labor-intensive agriculture, although Alaska, Utah, and New Mexico are not generally high users of farm labor. The remaining 37 States showed declines in labor use, as measured by labor expenditures. *[Jack L. Runyan, 202-219-0937]*

Change in farm labor expenditures, 1987-92

Much of the increase in expenditures occurred in major farm-labor-using States in the West and South


■ Increased
□ No change
▨ Decreased

Source: Calculated by ERS using data from the 1987 and 1992 Censuses of Agriculture.

Appendix: Data Sources and Definitions

Data Sources

Population and migration data: Population and migration data in this issue are from two different data sources. Estimates of population change, net migration, and natural increase reported in the first article are from the Bureau of the Census county population estimates issued annually. These estimates are based on the 1990 Census with changes in subsequent years based on components of change in births, deaths, and migration. Migration estimates are derived as a residual by subtracting natural population increase from actual increase. Estimates include net gain from other countries as well as the institutional population.

Migration data reported in the second article are from the Current Population Survey. The monthly Current Population Survey (CPS), conducted by the Bureau of the Census for the U.S. Department of Labor, provides detailed information on the demographic and economic characteristics of the population and labor force in metro and nonmetro areas. CPS derives estimates based on a national sample of about 58,000 households that are representative of the U.S. civilian noninstitutional population 16 years of age and over. The March CPS contains supplemental questions asking respondents where they were living a year prior to the survey. Migration data from this source are derived by comparing past to current residence but do not include the institutional population, and the authors excluded migration from other countries.

Employment data: Data on nonmetro employment and unemployment reported in this issue come from Bureau of Labor Statistics county-level employment data files. These data are taken from unemployment insurance claims and State surveys of establishment payrolls which are then benchmarked to State totals from the CPS. The BLS data series provides monthly estimates of labor force, employment, and unemployment for individual counties.

Earnings and employment benefit data: Each month, the CPS collects labor force information based on respondents' activity during 1 week during the month. In addition, workers in about a quarter of the CPS households are asked questions on usual weekly hours worked and earnings. The CPS earnings microdata file used in this issue consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during the year. The 1993 data file contained information on almost 500,000 persons. Hourly and weekly earnings data for nonmetro workers are from the earnings file. Information on health insurance and retirement fringe benefits for metro and nonmetro workers is from the March CPS.

Income, poverty, and transfer payment data: The household income and poverty data reported in this issue were calculated from the March CPS. Every year, the March CPS includes supplemental questions on sources and amounts of money income received during the previous calendar year and poverty status. Information on family size and income is used to estimate the number of families and individuals in poverty based on official guidelines issued by the Office of Management and Budget. Demographic data are available to examine the distribution of income and the characteristics of the poverty populations in metro and nonmetro areas.

Information on personal income and transfer payments derives from the Bureau of Economic Analysis (BEA) employment and income data. BEA estimates annual earnings, proprietors' income, transfer payments, and other personal income at the county level based primarily on administrative records. Annual estimates of transfer payments reported in this issue are based on administrative data from the Department of Health and Human Services, the Department of Veterans Affairs, the Department of Labor, the Office of Personnel Management, the Bureau of the Census, the USDA, and the IRS. Note that BEA's estimates of personal income include in-kind sources, such as medicare, medicaid, and food stamp benefits. The CPS collects data only on money income, so the two sources provide different income estimates. A shortcoming of the BEA data is the 2-year lag between when they are collected and when they are available for analysis.

Farm household income data: Farm household income data are from the Farm Costs and Returns Survey (FCRS). The FCRS is conducted annually by the Economic Research Service and the National Agricultural Statistics Service in all States except Alaska and Hawaii. For the 1993 calendar year, approximately 8,000 farms and ranches (defined as establishments from which $1,000 or more of agricultural products were sold or would normally be sold during the year) were contacted and their operators personally interviewed during February and March of 1994. The FCRS is a probability-based survey in which each respondent represents a number of farms of similar size and type. Thus, sample data can be expanded using appropriate weights to represent all farms in the contiguous United States.

Farm labor data: Information on the characteristics and earnings of hired farmworkers are from the CPS 1993 earnings microdata file discussed above. Data on hired and contract labor expenditures are from the 1987 and 1992 Censuses of Agriculture. The census of agriculture, conducted every 5 years by the Bureau of the Census, is the leading source of statistics about the Nation's agricultural production, including farm labor use. The Census is a mail survey of the Nation's farms. To reduce respondent burden, some questions, such as labor expenditures, were asked of a sample of farms.

Appendix: Data Sources and Definitions

Definitions

The data reported in this issue of *Rural Conditions and Trends* are for nonmetropolitan (nonmetro) and metropolitan (metro) areas, but we use the terms "rural" and "urban" interchangeably with "nonmetro" and "metro." However, in tables we use "nonmetro" and "metro," the original and more accurate terms used in the data sources.

Family: Family is defined as two or more people residing together who are related by birth, marriage, or adoption.

Farm: Any place from which $1,000 or more worth of agricultural products are sold or normally would be sold in a year.

Farm household income: Farm income to the household includes net cash farm income less depreciation, adjusted for the share received by the senior operator household in the case of multiple-household farms. It also includes the income that all farm household members received from all other sources. Farm operator household income is defined consistently with the definition of household income used by the Bureau of the Census in the Current Population Survey.

Farm operator households: Households consist of all members of the households of senior operators of farms organized as individual operations, partnerships, and family corporations. Household members include all persons dependent on the household for financial support, whether they live in the household or not. Students away at school, for example, are counted as household members if they are dependents.

Hired farmworkers: Persons aged 15 and older who did farmwork for cash wages or salary. Includes persons who manage farms for employers on a paid basis, supervisors of farmworkers, and general farm and nursery workers.

Household: Households consist of all persons living in a housing unit. A house, an apartment, or a single room is considered a housing unit if it is occupied as separate living quarters. To be classified as separate living quarters, the occupants of the housing unit must not live and eat with any other people in the structure.

Household income: The sum of the amounts of money received from wages and salaries; nonfarm self-employment income; farm self-employment income; Social Security or railroad retirement; Supplemental Security Income; cash public assistance or welfare payments; dividends, interest, or net rental income; veterans payments; unemployment or workers' compensation; private or government employee pensions; alimony or child support; and other periodic payments for all household members.

Inflation rate: The percentage change in a measure of the average price level. The two measures of the average price level used in this issue are the Consumer Price Index (earnings, household income, poverty, and farm labor articles) and the Implicit Personal Consumption Expenditures Deflator (transfer payments article).

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and a total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 Census. Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Poverty: A person is in poverty if his or her family's money income is below the official poverty threshold appropriate for that size and type of family. Different thresholds exist for elderly and nonelderly unrelated individuals, for two-person families with and without elderly heads, and for different family sizes by number of children. For example, the poverty threshold for a family of four with two children was $14,654 in 1993. The thresholds are adjusted for inflation annually using the Consumer Price Index.

Region: This issue uses a new regional delineation to help understand 1990-94 changes in rural areas. The States in each region are as follows:

North—Connecticut, Delaware, District of Columbia, Indiana, Maine, Maryland, Michigan, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Central—Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and South Dakota.

South—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Rural-urban continuum codes: Classification system developed by ERS to group counties by the size of their urban population and their adjacency to larger areas. [See Margaret A. Butler and Calvin L. Beale, *Rural-Urban Continuum Codes for Metro and Nonmetro Counties*, 1993, AGES 9425, U.S. Department of Agriculture, Economic Research Service, Sept. 1994.]

Metro counties—

Central counties of metro areas of 1 million population or more
Fringe counties of metro areas of 1 million population or more
Counties in metro areas of 250,000 to 1 million population
Counties in metro areas of fewer than 250,000 population

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area
Urban population of 20,000 or more, not adjacent to a metro area
Urban population of 2,500 to 19,999, adjacent to a metro area
Urban population of 2,500 to 19,999, not adjacent to a metro area
Completely rural or less than 2,500 urban population, adjacent to a metro area
Completely rural or less than 2,500 urban population, not adjacent to a metro area

Transfer payments: Cash or goods that people receive from government for which no work is currently performed. Receipt of transfer payments, however, may reflect work performed in the past. For example, elderly people receive Social Security now because they worked earlier in their lives and paid taxes to fund the program. In this issue, government transfers are grouped into six broad categories:

Retirement and disability programs—Social Security; railroad retirement; military retirement; Federal civilian, State, and local government employee retirement; workers' compensation; State temporary disability programs; and black lung.

Medical programs—Medicare, medicaid, and CHAMPUS (Civilian Health and Medical Plan of the Uniformed Services).

Income maintenance programs—Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), Food Stamps, general assistance, emergency assistance, refugee assistance, foster home care, earned income tax credits, and energy assistance.

Unemployment insurance—State unemployment compensation; unemployment compensation to Federal civilian employees, railroad employees, and veterans; trade adjustment allowances; and other smaller unemployment programs.

Veterans' programs—Various programs administered by the Department of Veterans' Affairs. Includes veterans' pensions, disability compensation, and other, smaller programs.

Education, training, and other programs—Federal education and training assistance includes federal fellowship payments (National Science Foundation fellowships and traineeships, subsistence payments to State maritime academy cadets, and other Federal fellowships), interest subsidy on higher education loans, basic educational opportunity grants, and Job Corps payments. Other programs include Bureau of Indian Affairs payments, education exchange payments, Alaska Permanent Fund dividend payments, compensation of survivors of public safety officers, compensation of victims of crime, Hurricane Hugo, and the Loma Prieta earthquake, compensation for Japanese internment, and other special government payments to individuals.

Note that payments from farm programs are received as part of farmers' gross income from current farming activities. They are not transfer payments.

Typology Codes: Classification system developed and periodically revised by ERS to group counties by economic and policy-relevant characteristics. The typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR 89, U.S. Department of Agriculture, Economic Research Service, Dec. 1994.

Economic types (mutually exclusive, a county may fall into only one economic type):

Farming-dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Mining-dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Manufacturing-dependent—Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Government-dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Services-dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance, insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years from 1987 to 1989.

Policy types (overlapping, a county may fall into any number of these types and one economic type):

Retirement-destination—The population aged 60 years and over in 1990 increased by 15 percent or more during 1980-90 through in-movement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land area in the year 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, 1990.

Transfers-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over the 3 years from 1987 to 1989.

Unemployment rate: The number of unemployed people 16 years and older as a percentage of the civilian labor force 16 years and older.

Appendix table 1—Population change, net migration, and natural increase by county types, 1990 to 1994

County type	Counties	Population change	Share of counties with increasing population	Net migration	Share of counties with net inmigration	Natural change	Share of counties with natural increase
	Number	Percent					
Total nonmetro	2,304	3.9	74	2.2	63	1.7	76
Farming-dependent	556	2.3	47	1.0	44	1.3	56
Mining-dependent	146	2.1	63	0.1	47	2.0	79
Manufacturing-dependent	506	3.6	88	1.8	70	1.7	91
Government	242	4.3	87	1.3	73	3.0	82
Services	323	5.8	84	4.3	74	1.3	77
Nonspecialized	484	3.9	80	2.6	72	1.3	77
Retirement	190	10.7	99	9.4	97	1.4	69
Recreational	285	7.8	92	6.0	85	1.9	81
Persistent poverty	535	3.2	71	0.8	53	2.4	84

Notes: 1993 metro definition; 14 previously metro counties excluded from type analysis. Types are not mutually exclusive, except that farming, mining, manufacturing, government, services, and nonspecialized types are mutually exclusive of each other. Recreational counties defined by Johnson and Beale in *Rural Conditions and Trends*, Vol. 5 No. 1, Spring 1994. All other types defined in Cook and Mizer, 1994 (see appendix). Percent change is aggregate change for all cases in category.

Source: Calculated by Loyola University-Chicago from Bureau of the Census data.

Appendix table 2—Average employment change for nonmetro county groups

	Annual change in employment			
Item	1990-91	1991-92	1992-93	1993-94
		Percent		
U.S.total	-0.9	0.7	1.5	2.5
Metro	-1.0	0.5	1.3	2.5
Nonmetro	-0.1	1.6	2.0	2.8
Region:				
North	-0.7	1.4	2.5	2.2
Central	0.5	1.4	1.3	2.2
South	-0.2	1.5	1.8	2.6
West	0.7	2.3	2.8	5.3
County type:				
Farming	0.1	1.0	1.7	3.8
Mining	-0.2	-0.8	0.6	2.1
Manufacturing	-0.7	1.6	1.9	2.6
Services	0.7	1.9	2.6	3.2
Retirement	1.1	2.6	2.7	3.7
Poverty	-0.3	1.5	1.6	2.8
Urban-rural continuum code:				
Adjacent—				
Urban	-0.3	1.1	1.5	2.7
Less urban	-0.2	1.7	2.2	2.7
Rural	0.2	1.7	2.1	2.9
Nonadjacent—				
Urban	0.7	1.9	1.9	3.0
Less urban	-0.2	1.6	2.2	2.9
Rural	-0.4	1.4	1.5	2.7

Note: Data for 1994 are preliminary. See p. 45 for definition of regions.

Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Appendix table 3—Average unemployment rate for nonmetro county groups

Item	1990	1991	1992	1993	1994
			Percent		
U.S.total	5.5	6.7	7.4	6.8	6.1
Metro	5.3	6.5	7.2	6.7	5.9
Nonmetro	6.5	7.7	8.0	7.4	6.6
Region:					
North	6.4	8.0	8.3	7.3	6.5
Central	5.6	6.1	6.0	6.1	5.2
South	7.0	8.2	8.6	7.7	7.0
West	6.9	7.8	9.0	8.6	7.6
County type:					
Farming	6.0	6.7	7.4	7.0	6.4
Mining	7.4	9.1	10.3	9.7	8.5
Manufacturing	6.6	7.9	8.1	7.3	6.4
Services	6.1	7.1	7.7	7.0	6.2
Retirement	6.3	7.5	8.5	8.0	7.2
Poverty	8.1	9.2	9.6	8.9	8.2
Urban-rural continuum code:					
Adjacent—					
Urban	6.3	7.5	8.1	7.3	6.5
Less urban	6.6	7.9	8.2	7.6	6.7
Rural	6.5	7.7	8.2	7.4	6.6
Nonadjacent					
Urban	6.2	7.1	7.5	7.0	6.3
Less urban	6.8	7.8	8.0	7.4	6.6
Rural	6.5	7.7	7.9	7.3	6.6

Note: Data for 1994 are preliminary. See p. 45 for definition of regions.
Source: Calculated by ERS using data from Bureau of Labor Statistics.

Appendix table 4—Share of nonmetro workers holding low-pay jobs[1]

Item	All wage and salary workers			Full-time wage and salary workers		
	1979	1990	1993	1979	1990	1993
	Percent					
All workers	34.0	43.0	42.9	21.5	30.3	30.0
Sex:						
Women	54.2	58.5	56.7	38.5	43.7	41.5
Men	18.9	29.1	30.2	11.5	20.8	21.5
Age:						
16-24 years	56.0	76.2	77.7	38.9	60.8	61.7
25-59 years	24.1	33.9	33.5	16.0	25.2	25.0
60 years or older	50.5	60.1	61.6	25.6	34.5	34.3
Education:						
Less than high school	49.4	65.2	66.0	32.5	49.5	49.7
High school	32.4	43.3	44.1	22.7	33.1	34.0
Some college, no degree	30.1	40.2	41.9	16.2	25.2	27.1
Bachelor's degree	14.7	21.3	19.3	7.1	11.7	9.9
Graduate degree	10.1	11.9	9.1	3.7	5.4	3.8
Race/ethnicity[2]:						
White	32.5	41.6	41.4	19.9	28.3	28.0
Black	53.2	58.9	60.8	42.7	51.5	52.3
Hispanic	41.4	61.4	42.4	30.7	52.5	50.4
Weekly hours:						
Part-time[3]	91.7	93.6	93.0	NA	NA	NA
Full-time[4]	21.5	30.3	30.0	NA	NA	NA

NA = Not applicable.

[1] Weekly earnings such that year-round employment (52 weeks) is insufficient to bring a family of four above the poverty line.

[2] White denotes all races other than Black. Hispanics can be of any race.

[3] Fewer than 35 hours per week.

[4] Thirty five or more hours per week.

Source: Calculated by ERS using data from the Current Population Survey Earnings Files for 1979, 1990, and 1993.

Appendix table 5—Family structure and poverty in nonmetro America

Item	1969	1979	1989	1993
	Percent			
Share of nonmetro population:				
Total nonmetro	100.0	100.0	100.0	100.0
Husband-wife family	85.5	80.5	73.4	71.4
Male-headed family	[1]	[1]	2.7	2.6
Female-headed family	8.4	10.0	11.9	13.1
Male living alone	2.1	3.9	5.0	5.9
Female living alone	4.0	5.6	7.0	7.0
Nonmetro poverty rate:				
Total nonmetro	17.1	13.6	15.7	17.3
Husband-wife family	12.3	9.0	9.6	10.5
Male-headed family	[1]	[1]	17.1	18.0
Female-headed family	45.9	36.9	42.5	43.4
Male living alone	36.4	20.7	21.7	20.2
Female living alone	50.3	33.9	29.9	34.5
Share of nonmetro poor:				
Total nonmetro	100.0	100.0	100.0	100.0
Husband-wife family	61.4	52.9	44.8	43.4
Male-headed family	[1]	[1]	2.9	2.8
Female-headed family	22.4	27.2	32.1	33.0
Male living alone	4.5	6.0	6.9	6.8
Female living alone	11.7	14.0	13.4	14.1

[1] Single-male-headed families are included with husband-wife families in 1969 and 1979.

Source: Calculated by ERS using data from the March 1970, 1980, 1990, and 1994 Current Population Surveys.

Appendix table 6—Employment and poverty by residence

Employment status of family members and individuals living alone	Share of population		Poverty rate		Share of poor	
	1989	1993	1989	1993	1989	1993
	Percent					
Nonmetro:						
One or more full-time-full-year workers	64.4	63.1	6.1	5.9	25.1	21.7
Part-time or part-year workers only	17.0	17.5	35.6	37.9	38.4	38.5
No employed person	18.7	19.3	30.8	35.5	36.6	39.8
Working-age person(s) in family[1]	7.3	8.0	52.4	60.5	24.3	28.1
No working-age person in family[1]	11.4	11.3	16.9	17.8	12.2	11.7
Nonmetro total	100.0	100.0	15.7	17.3	100.0	100.0
Metro:						
One or more full-time-full-year workers	69.6	67.8	3.0	3.9	17.3	18.0
Part-time or part-year worker only	15.1	15.7	30.1	34.4	37.9	36.9
No employed person	15.3	16.6	35.1	39.7	44.8	45.1
Working-age person(s) in family[1]	7.0	8.2	62.5	67.1	36.6	37.9
No working-age person in family[1]	8.3	8.3	11.9	12.5	8.2	7.1
Metro total	100.0	100.0	12.0	14.6	100.0	100.0

[1] For individuals living alone, presence of working-age person refers to the individual's own age. Working age here means age 16-64.

Source: Calculated by ERS using data from the March 1990 and 1994 Current Population Surveys.

Appendix table 7—Per capita income and government transfer payments

	1992		Average annual change, 1989-92	
	Nonmetro	Metro	Nonmetro	Metro
	Dollars		Percent	
Per capita income	15,628	21,247	0.8	-0.1
Transfer payments	3,254	3,201	5.8	5.7
Retirement and disability programs	1,684	1,606	2.4	1.9
Medical programs	989	1,009	10.8	9.7
Income maintenance programs	313	318	8.9	8.1
Supplemental Security Income	95	86	9.3	8.3
Aid to Families with Dependent Children	64	98	3.3	3.4
Food stamps	94	80	10.5	14.9
Other income maintenance programs	60	53	12.6	8.5
Unemployment insurance	138	162	27.2	34.2
Veterans' benefits	91	68	-2.5	-2.6
Other transfer programs	40	38	-3.2	0.1
	Percentage of income			
Share of income from transfers	20.8	15.1	NA	NA
	Percentage of total transfer payments			
Distribution of transfers by source:				
Retirement and disability programs	51.7	50.2	NA	NA
Medical programs	30.4	31.5	NA	NA
Income maintenance programs	9.6	9.9	NA	NA
Supplemental Security Income	2.9	2.7	NA	NA
Aid to Families with Dependent Children	2.0	3.1	NA	NA
Food stamps	2.9	2.5	NA	NA
Other income maintenance programs	1.8	1.7	NA	NA
Unemployment insurance	4.2	5.0	NA	NA
Veterans' benefits	2.8	2.1	NA	NA
Other transfer programs	1.2	1.2	NA	NA

NA=Not applicable. Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 8—Nonmetro per capita income and transfer payments by region and county type, 1992

				Share of transfers from—			
Item	Per capita income	Per capita transfers	Transfers as a share of income	Retirement and disability programs	Medical programs	Income maintenance programs	Other programs
	Dollars		Percent				
All nonmetro	15,628	3,254	20.8	51.7	30.4	9.6	8.3
By region:[1]							
North	16,579	3,277	19.8	52.0	31.5	7.8	8.7
Central	16,223	3,262	20.1	53.6	31.7	7.3	7.4
South	14,601	3,263	22.4	49.8	31.0	11.7	7.4
West	16,048	3,178	19.8	54.1	25.0	10.0	10.9
By county type:							
Retirement-destination	17,649	3,722	21.1	57.9	25.8	8.2	8.1
Persistent poverty	13,206	3,446	26.1	43.8	32.8	15.6	7.8

[1] See p. 45 for definition of regions.

Source: Calculated by ERS using data from the Bureau of Economic Analysis and revised ERS typology codes.

Appendix table 9—Farm operator households and household income, by selected characteristics, 1993

	Households		Average household income		Share from off-farm sources[1]	
Item	Number	RSE[2]	Dollars	RSE[2]	Percent	RSE[2]
All operator households	2,035,692	2.3	40,223	2.8	88	1.4
Household income class:						
Negative	151,674	7.0	-28,383	8.6	nc	nc
0-$9,999	232,031	6.8	5,754	3.4	159	4.4
$10,000-$24,999	533,525	5.1	17,804	1.2	105	2.1
$25,000-$49,999	617,632	4.3	36,225	0.8	89	1.4
$50,000 and more	500,829	4.6	105,781	3.5	73	2.4
Operator's age class:						
Less than 35 years	180,401	7.0	33,085	8.0	77	6.6
35-44 years	394,137	4.8	41,934	4.1	81	3.6
45-54 years	471,458	5.1	52,125	7.0	91	2.5
55-64 years	433,343	5.0	45,390	4.9	87	2.7
65 years or older	556,352	5.0	27,214	5.2	96	2.1
Operator's level of education:						
Less than high school	472,721	5.4	24,548	6.3	92	3.6
High school	840,573	3.6	36,819	3.1	86	2.0
Some college	412,779	5.9	47,833	7.5	86	2.9
College	309,618	5.1	63,250	6.2	90	3.1
Operator's major occupation:						
Farm or ranch work	919,044	2.4	36,117	3.4	61	3.3
Other	769,237	4.4	51,322	4.7	107	1.0
Retired	347,410	7.3	26,507	7.6	101	1.7
Type of farm:						
Cash grains	348,418	3.9	38,682	4.1	74	3.3
Other crops	486,896	5.5	46,420	6.1	85	3.0
Beef, hogs, or sheep	957,000	3.7	36,958	3.7	100	1.7
Dairy	138,466	4.9	40,191	6.7	37	8.0
Other livestock	104,911	11.6	46,397	24.7	107	5.1
Sales class of farm:						
Less than $50,000	1,498,460	3.1	35,597	3.3	108	1.0
$50,000 and more	537,232	2.1	53,124	5.2	51	5.2
$50,000-$249,999	427,586	2.7	41,372	7.5	65	4.7
$250,000-$499,999	68,278	5.3	66,008	6.3	39	9.3
$500,000 and more	41,368	5.7	153,328	10.3	21	13.1
Organization of farm:						
Individual	1,859,231	2.5	38,530	3.1	91	1.3
Partnership	124,399	6.9	54,094	7.7	71	5.4
Family corporation	52,062	9.3	67,546	13.3	54	13.4
Region:[3]						
North	410,249	5.1	36,460	4.0	88	2.4
Central	613,778	3.9	37,748	4.7	81	2.8
South	751,047	3.8	40,968	6.0	97	1.9
West	260,617	8.1	49,827	5.9	80	5.1

nc=not computed. [1] Income from off-farm sources can be more than 100 percent of total household income if farm income is negative. [2] The relative standard error (RSE) provides the means of evaluating the survey results. A smaller RSE indicates greater reliability of the estimate. [3] See p. 45 for definition of regions. Source: Farm Costs and Returns Survey, U.S. Department of Agriculture.

Appendix table 10—Demographic characteristics of hired farmworkers, 1990-93

	Hired farmworkers			
Number and characteristics	1990	1991	1992	1993
		Thousands		
Number of workers	886	884	848	803
		Percent		
Total	100	100	100	100
Gender:				
Male	82.9	82.4	83.8	84.7
Female	17.1	17.6	16.2	15.3
Racial/ethnic group:				
White	61.0	60.3	59.7	57.5
Hispanic	29.4	28.3	30.7	33.6
Black and other	9.6	11.4	9.6	8.9
Age (years):				
Less than 20	16.2	14.4	14.5	14.0
20-24	15.3	13.0	13.3	13.2
25-34	28.4	28.9	29.0	29.3
35-44	19.2	20.3	20.6	21.8
45-54	10.2	10.8	11.3	12.1
55 and over	10.7	12.6	11.3	9.6
Marital status:				
Married	53.3	53.4	53.5	51.8
Widowed, divorced, or separated	8.9	11.2	10.1	9.5
Never married	37.8	35.4	36.4	38.6
School completed (years):[1]				
0-4	11.1	11.5	14.1	16.4
5-8	21.6	21.2	16.0	17.4
9-11	22.8	22.6	27.0	21.8
12	31.4	31.0	26.9	27.0
13 and over	13.1	13.7	16.0	17.4
Weekly earnings:				
Less than $100	14.2	12.6	12.0	10.9
$100-$199	28.4	26.5	30.5	26.2
$200-$299	33.4	34.0	30.8	36.0
$300-$399	13.4	16.4	15.0	15.6
$400-$499	5.2	5.4	5.5	5.6
$500-$599	2.4	2.7	3.3	3.0
$600 and over	3.0	2.4	2.8	2.7

[1] Educational attainment levels, beginning January 1992, were revised to reflect degrees received rather than years of school completed.

Source: Calculated by ERS using data from the Current Population Survey microdata earnings files.

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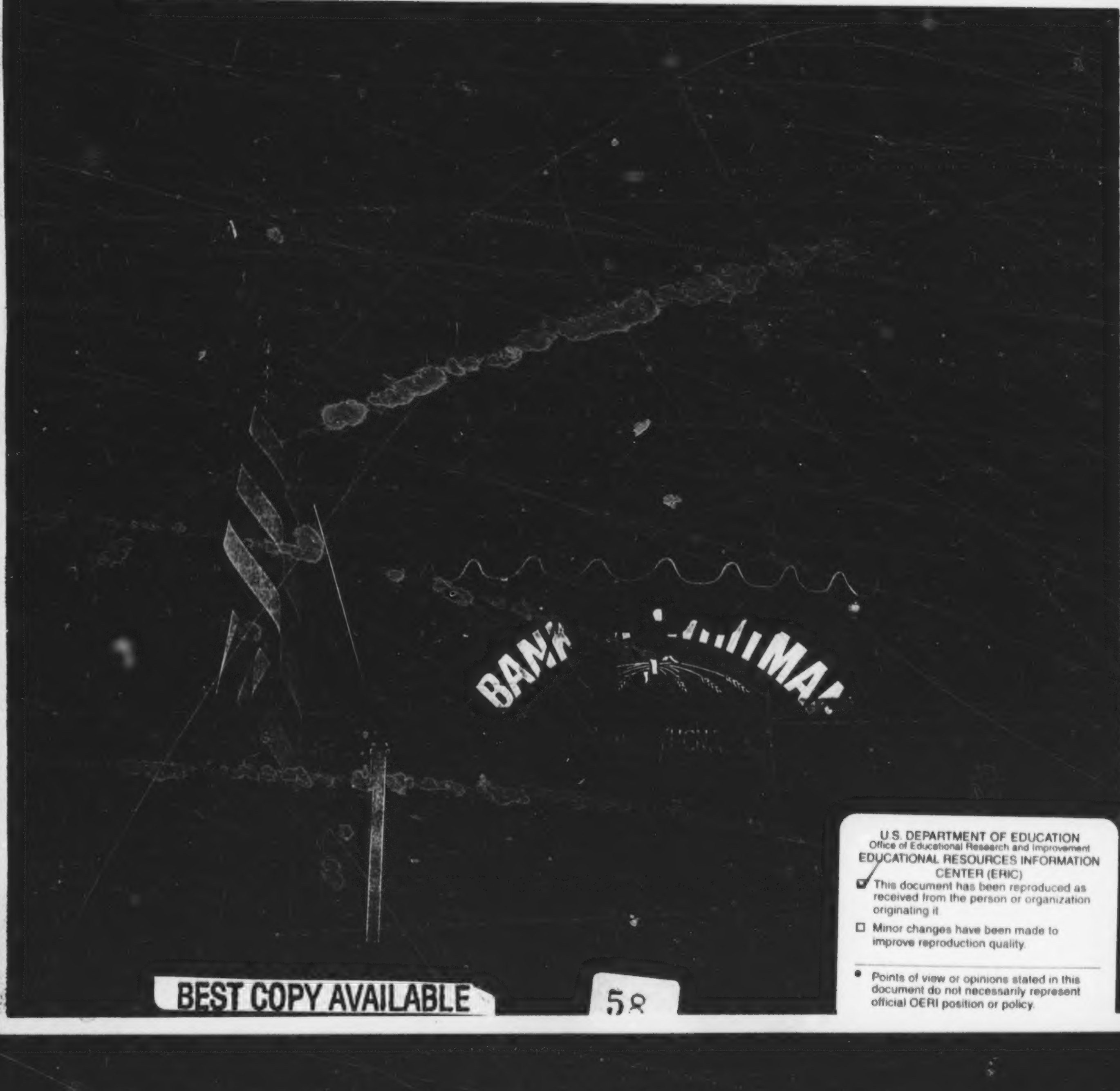
Rural Conditions and Trends

Economic Research Service • United States Department of Agriculture • Fall 1995 • Vol. 6, No. 2

Financial Institutions



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Editor's Note

This special Fall issue is devoted to analysis of rural financial institutions. We decided to make this a special issue for several reasons. We received very positive response to our special Fall 1993 issue on Census data, making us recognize readers' interest in indepth coverage of issues. Had we issued this as a supplement, subscribers would not have received it as part of their regular subscriptions. And, this special issue marks the end of our twice-a-year publication schedule.

In 1996, we will begin publishing *Rural Conditions and Trends* three times a year. One issue will be devoted to analysis of rural industries and will contain much more detailed information than we have been publishing in the Fall issues. Another issue will be devoted to analysis of rural socioeconomic conditions and will cover many of the same topics as the Spring 1995 issue did. The third issue will be devoted to analysis of the effects of Federal policies and programs on rural America. We hope that this new coverage of Federal policies and programs and expanded coverage of industries will provide readers with broader understanding of the conditions and trends shaping rural economies and family life.

Authors

This special Fall issue of *Rural Conditions and Trends* was planned and written almost exclusively by Daniel L. Milkove, 202-219-0318.

James McGlone wrote the article on rural businesses' satisfaction with their banks, and Cliff Rossi contributed to the savings and loan article. Jim and Cliff left ERS before this issue went to press. If you have question concerning anything in this issue, please contact Dan.

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Rural Conditions and Trends

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Rural Financial Institutions Are in Good Shape But Must Stay Alert

Rural financial institutions did well in 1994 and are likely to remain successful in the coming years. But they will increasingly face competition from branches of large urban banks.

This report tracks the performance of the major depository financial institutions that serve rural America. The 1990-91 recession was not easy for banks, credit unions, and savings and loan associations (S&L's), but rural segments of the financial services industry fared relatively well. As the country recovered from the recession, the financial sector as a whole regained its health faster than the rest of the economy. By type of institution, banks have been reporting record profits since 1993, credit unions escaped the major problems faced by their competitors, and Federal regulators have cleaned up the savings and loan industry by selling or closing those institutions that cannot make it on their own.

When failed banks became a daily media item during the 1980's, rural banks were a major part of the story as a direct result of problems with their agricultural loans. Rural banks, particularly in Texas and Oklahoma, were also hurt by the energy crisis. More recently the major weakness in banking was commercial real estate, with banks in the Northeast and California experiencing pronounced stress. Commercial real estate is more of an urban problem, and relatively few rural banks are found in the Northeast. Thus, while rural banks by no means escaped the effects of a weak national economy during the early 1990's, as a group they have enjoyed an amazing rebound over the last 10 years.

The near future looks generally bright for rural financial institutions. Profits should remain solid at least until the next recession, and most firms should be able to survive then as well. Capital reserves are generally high, and so far most financial institutions seem to be avoiding the sort of major miscalculations that destroyed many firms in the 1980's and early 1990's.

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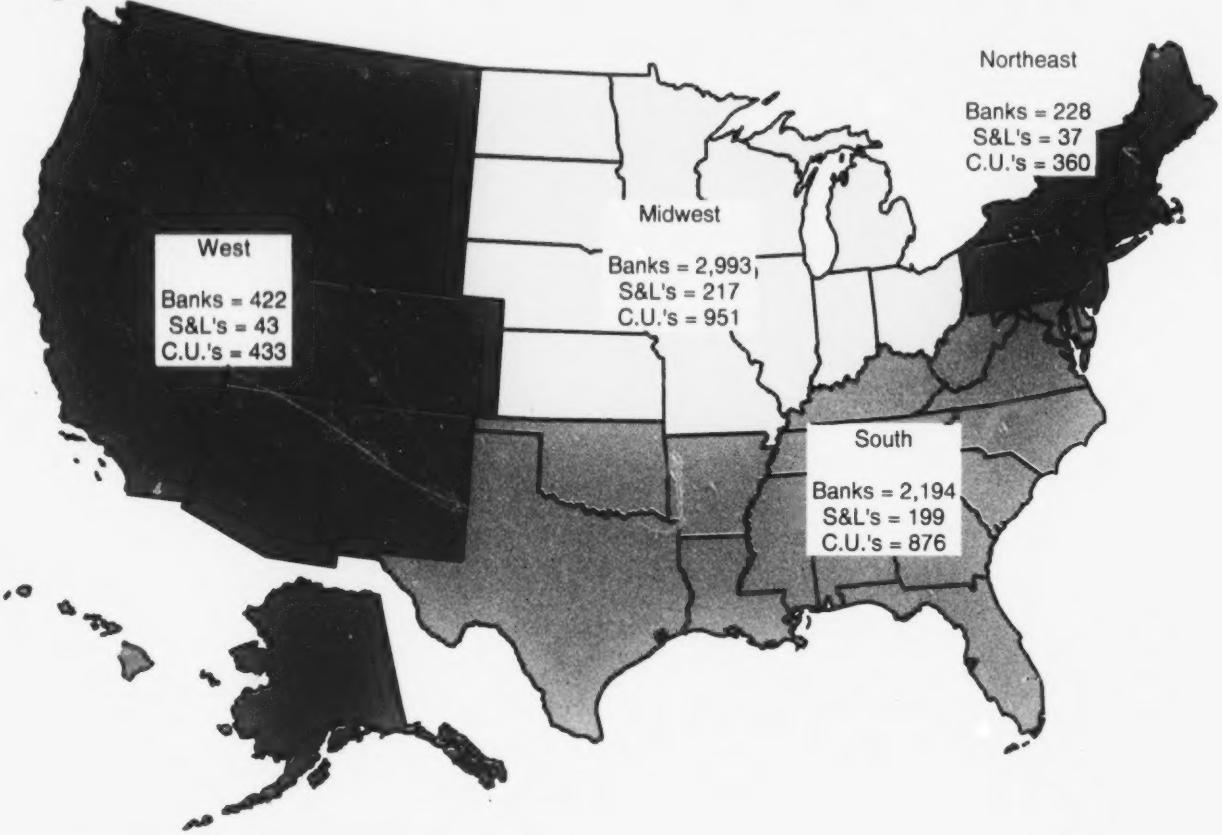
Nonmetro financial institutions by type and region, 1994

The Northeast and West have fewer financial institutions in nonmetro areas because their populations are more concentrated in metro areas and their nonmetro areas are more likely to be served by branches of large metro institutions


Northeast
Banks = 228
S&L's = 37
C.U.'s = 360
West
Banks = 422
S&L's = 43
C.U.'s = 433
Midwest
Banks = 2,993
S&L's = 217
C.U.'s = 951
South
Banks = 2,194
S&L's = 199
C.U.'s = 876

Note: C.U.'s stands for credit unions.
Source: See appendix tables 1-3, pp. 34-35, for data sources.

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Banks Dominate Rural Financial Institutions

Rural banks remain the key financial institution in rural America. While the banking industry has been consolidating for many years, the mergers, acquisitions, and failures have not necessarily reduced competition at the local level.

By any measure, commercial banks dominate most rural financial markets. At the end of 1994, almost two-thirds of the depository institutions headquartered in rural communities were banks, and they controlled over 80 percent of the total assets, deposits, and loans held by rural depository institutions. Credit unions represent more than a quarter of rural-based depository institutions but due to their small size they controlled market shares below 6 percent for assets, deposits, and loans. Rural S&L headquarters are by far the fewest in number, just 5.5 percent of the rural depository institutions, but their shares of total assets and deposits are almost double this proportion.

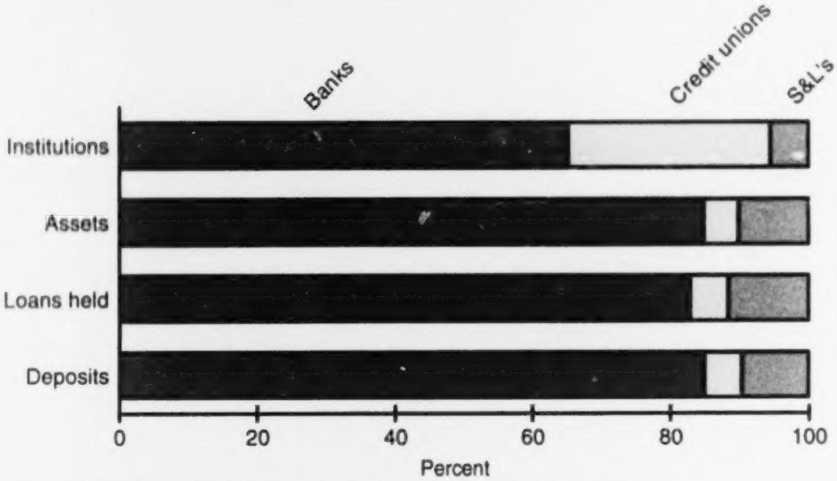
The number of rural-headquartered banks continues to decline during the 1990's, but due primarily to mergers and corporate restructuring rather than to bank failures. Similar statements can be made for S&L's and credit unions, but with heavier stress on failure in the S&L case. However, this does not necessarily imply that rural residents and businesses as a rule have fewer financial institutions to choose from. Banks that lose their legal independence often become branch offices of the acquiring bank. While the number of banks is declining, the number of bank branches is increasing. Plus alternative methods of providing banking services are spreading rapidly. For example, Automated Teller Machines (ATM's) make it unnecessary to go to a full-service bank office to obtain cash or to make deposits. Some banks market credit cards nationally through the mail, and more banks are experimenting with service based on the telephone or computer. Perhaps most important is how many banks or other financial institutions are serving a particular town or county and what level of service they provide.

Several very large bank mergers were announced during the early 1990's. Some of these banks control many rural bank branches or affiliated rural banks. In communities where the merger partners both operated prior to the merger, some offices may be closed on efficiency grounds, and the number of distinct competitors will decline by one, reducing local competition among financial institutions.

In contrast, though such cases are relatively rare, if an "outside" banking organization acquires a locally owned and managed bank, the issue becomes the degree of local commitment rather than reduced competition. In some communities, the outside bank may provide new types of financial services and perhaps even prove itself to be a more aggressive and competitive lender. In others, local borrowers may find the new bank unresponsive to their unique needs and circumstances. Several bank holding companies have expressed an interest in acquiring community banks, provided the banks are profitable and the local economies are growing. Some acquisitions might be rural, but merger targets are typically larger, urban banks, with rural banks or bank branches caught up in the process only because they were already owned by the primary target.

Distributions of nonmetro financial institutions, assets, loans held, and deposits by type of institution, 1994

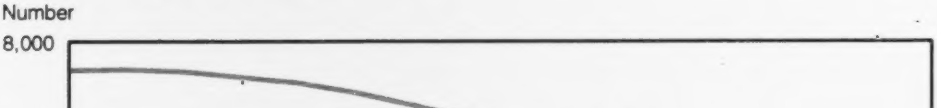
Banks account for 65 percent of nonmetro institutions and even higher percentages of assets, loans, and deposits; credit unions account for nearly 30 percent of institutions, but lag S&L's in the volume of their business



Source: Calculated by ERS using data from Call Reports for December, 1994.

Number of insured rural financial institutions by type, 1980-95

Though starting from a smaller base, the number of S&L's has declined at a faster pace than banks and credit unions



Note: End of year data, except for October 31, 1995. S&L's include Federal savings banks.
Source: Calculated by ERS from the Federal Reserve Board's NIC database.

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Rural Banks Are Healthy

Rural banks have regained their financial health and should be able to fill creditworthy loan requests as rural economies continue to recover from the last economic recession.

After declining substantially between 1987 and 1989, the number of rural bank failures increased slightly to 47 in 1990 but again declined rapidly to 26 failures in 1991. With urban failures also slowing in 1991, some analysts attributed that year's drop to a lack of funds in the Federal Deposit Insurance Corporation's (FDIC's) Bank Insurance Fund (BIF). Since the BIF was replenished by 1991 legislation, analysts expected a large increase in 1992 failures. Instead, as the economy turned around and interest rates dropped, many troubled banks were able to regain their health and rural bank failures declined further to 24 in 1992 and 6 in 1993. No rural bank failed during 1994 and only one did so through August of 1995.

Loan Portfolios

Rural banks continue to adjust their loan portfolios towards home mortgages, which represented almost a third of their total loans in 1994. It stands to reason that banks may be picking up some of the pieces left behind by the decimated thrift industry. Loan portfolio data do not tell the whole story, especially in the case of mortgage loans where there are well-developed secondary markets. That is, the loan data show loans held by banks, not loans made by banks in any particular time period. After earning fee income by originating mortgage loans, banks can choose to hold the loans and earn interest income, or to sell those loans that meet the requirements of the secondary market. Selling loans provides funds to make additional loans or other investments, and also lessens credit risk (borrowers may not repay their loans) and interest rate risk (interest paid to depositors might become larger than the rates earned from fixed-rate mortgages) associated with holding loans in portfolio. Banks also purchase securities backed by mortgage loans, which gives them better geographic diversification. Since these securities represent small pieces of many different mortgages, banks gain safety by not facing large losses if one or two of the underlying mortgages default.

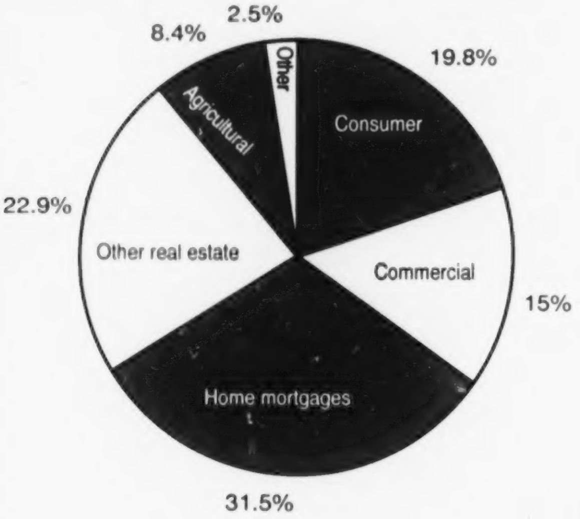
Some banks may have problems using secondary markets because their loan portfolios differ substantially from the national average. Representatives of community development organizations argue that mortgage applications from residents of small rural communities often fail to meet national underwriting standards for secondary markets. Banks in those communities may then make fewer loans or, if they do make nonstandard loans, have less access to the benefits provided by selling loans on the secondary market.

The process of securitization has been spreading to other types of loans due to its perceived benefits for both lenders and borrowers. Borrowers are thought to benefit through lower interest rates made possible by spreading risk over much larger pools of investors. Securities backed by credit card receivables and automobile loans have appeared in recent years, but they were based on loans held by a single large financial institution and thus would not be feasible outlets for rural banks. Farmer Mac was organized more in the spirit of the mortgage secondary market and is meant to be a vehicle for rural banks to sell their agricultural loans. However, Farmer Mac has been slow to get off the ground and is not designed to eliminate risk. Loans purchased for this market will have to meet underwriting standards sufficiently strict to induce investors to purchase securities backed by those loans. Banks will still have to hold in their portfolios loans deemed overly risky. But the program should ultimately increase bank liquidity and credit availability during periods when funds otherwise become scarce. And rural banks in heavily agricultural areas could lessen their sensitivity to conditions in the farm sector by selling some farm loans.

The creation of a secondary market for commercial loans is also under consideration. Because business loans are inherently not standardized, devising underwriting criteria poses significant problems. But if this can be accomplished in a way that permits active loan selling by rural banks, this would further reduce the risk many rural banks bear because their loans are concentrated in a few key industries and over a small geographic area.

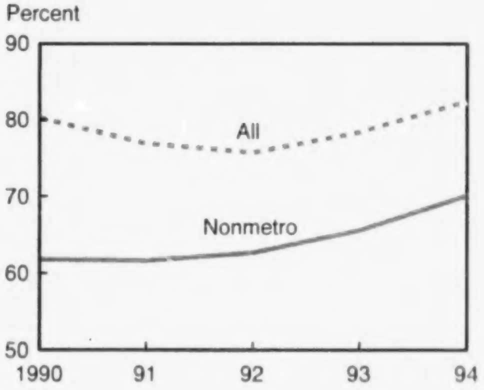
Distribution of nonmetro bank loans by type, 1994

For rural banks as a whole, agricultural loans no longer dominate loan portfolios



Bank loan/deposit ratios

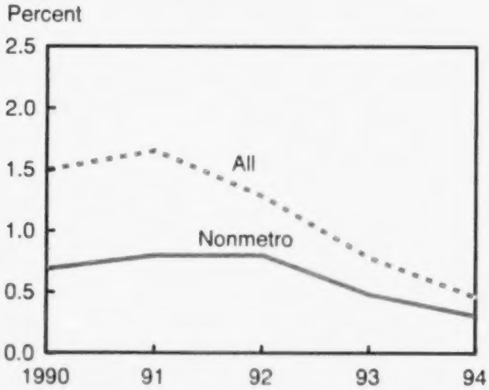
Nonmetro banks lend less than other banks on loans as a proportion of their deposits



Note: See the appendix for definitions of loan/deposit ratios and other performance measures used in the figures and tables.

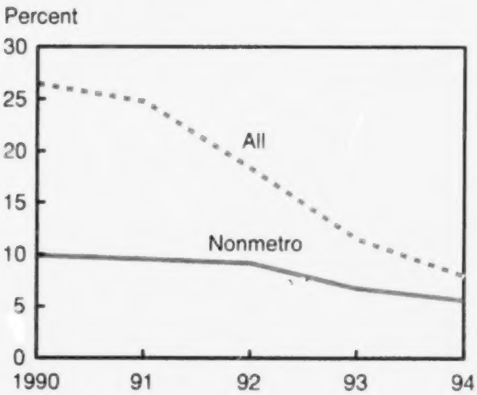
Bank loan loss provisions

A healthy economy allowed banks to set aside fewer funds to cover their bad loans



Problem loans as a share of bank capital

Bad loans continued to decline relative to nonmetro bank capital



Source: All graphs were calculated by ERS using data from the *Report of Condition* and *Report of Income*.

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In response to an expanding economy, average loan-to-deposit ratios at rural banks have grown steadily since 1991 and reached 70.1 percent by the end of 1994. Some years ago, loan ratios of this magnitude might have produced concern that rural banks could not continue to handle all of their creditworthy loan requests. However, surveys of bank officers have not detected widespread signs that bankers feel a need to slow down any time soon. Even if bank deposits do not grow fast enough, the banks can raise loanable funds in other ways, such as by selling government securities. Loan ratios of rural banks remain substantially lower on average than those of all banks, though by a narrower margin than in 1990. The overall ratio is heavily influenced by the largest banks, whose ratios often exceed 100 percent due to their use of nondeposit sources of funds to make loans.

At the same time that banks were making more loans, declining loan loss provisions reflected the improving quality of their outstanding loan portfolios. Provisions are funds that financial institutions subtract from current income to add to their loan loss reserves. These reserves in turn are used to balance out bad loans that are written off. Some banks tend to set loan loss provisions just equal to actual loan write-offs, while others add to their reserves in anticipation of future write-offs. In recent years, some banks have managed to take negative loan loss provisions — reserves were higher than necessary so a portion could be transferred to reported profits for that period.

Profitability

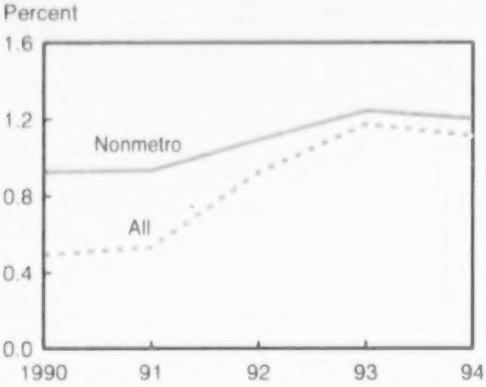
Rural bank performance was solid during 1990 and 1991 according to several measures of profitability, especially relative to the overall banking industry. The 1990-91 recession was certainly not a positive development, as it depressed loan demand. But lower interest rates induced by a weak economy and by Federal Reserve Board efforts to fight the recession increased bank profits since deposit rates fell quicker than loan rates. And rural banks, in general, do not make the sort of commercial real estate loans that haunted Northeast banks during the recession. Thus rural banks came out of the recession in good shape, in line for increasing profitability during 1992-94. And banks continued to get their problem loans under control, suggesting good prospects for 1995 and beyond in the absence of major surprises.

Return on assets, return on equity, net interest margin, and capital-to-asset ratios all improved between 1990 and 1993. Each declined a bit in 1994, but values remaining above those prevailing in 1990 leave no reason to anticipate serious problems similar to those encountered by rural banks during the agricultural crisis of the middle 1980's. The drop in problem loans as a proportion of total capital lends credence to this belief. The average for all rural banks fell below 6 percent in 1994, though this may be attributed in part to regulators requiring increased capital reserves as well as to fewer problem loans. Still, only four rural banks had problem loans exceeding their total capital. Problem loans were somewhat higher for all banks, at close to 8 percent of capital at the end of 1994. This gap was much higher in 1990, heavily influenced by problems experienced by some large urban banks. The difference has narrowed considerably in recent years as the large banks were able to get their problems under control.

Distributions of these measures reveal that a minority of rural banks remain in some trouble. About 7 percent have problem loans exceeding 15 percent of capital. Theoretically, many could survive even after writing off as total losses loans of this amount or somewhat higher. But experience with handling failed financial institutions over the past decade has taught us to anticipate greater losses for seriously troubled firms than are reflected on their financial statements. The 5 percent of rural banks with profits below 0.4 percent of assets are not earning at rates sufficient to survive in the long run. Banks that eat into their capital to absorb loan losses must either replace the capital or shrink their assets to a level at which remaining capital again becomes sufficient to protect against any future losses. Low profits do not support the use of retained profits as a painless method of adding to capital reserves. However, the virtual absence of bank failures suggests that regulators believe most of these banks are handling their problems satisfactorily.

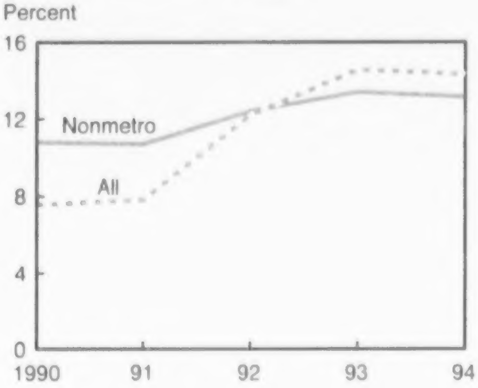
Return on bank assets

Bank profits retreated slightly from their record relative to assets but remained quite high in 1994



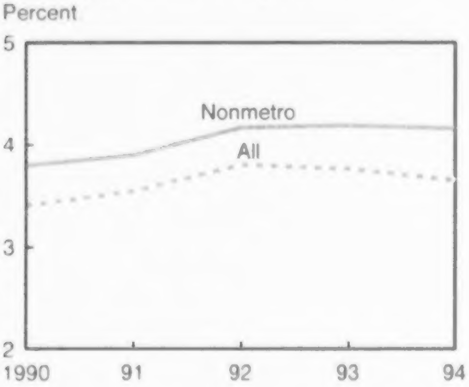
Return on bank equity

Profits as a percentage of equity capital also were solid in spite of a slight drop



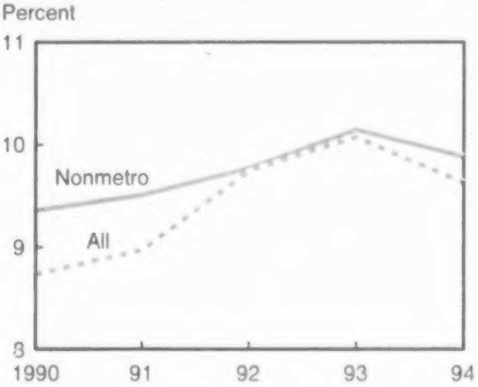
Banks' net interest margins

High net interest margins allowed banks to earn large profits in recent years



Banks' capital ratios

Capital fell as a proportion of assets in 1994 due to the rapid growth of bank loans



Source: All graphs were calculated by ERS using data from the *Report of Condition* and *Report of Income*.

Savings and Loans on the Way Back

While rural savings and loan institutions are moving in the right direction toward regaining financial health, they still have some work to do and must guard against repeating past mistakes.

The fallout of the savings and loan debacle continues to haunt the thrift industry as seen by a continued shrinkage in both the asset base and the number of firms. The thrift industry has regained its health, but at a tremendous cost for which the final tally remains uncertain. By selling assets, thrifts substantially raised their capital/asset ratios in anticipation of more stringent capital requirements. Rural thrifts followed a similar course and the survivors managed to improve their financial position. As the economy recovered from the 1990-91 recession, rural thrifts remained cautious with respect to lending. Moves by the Federal Reserve to stimulate the economy with lower interest rates gave rural thrifts an opportunity to boost profits further due to a lower cost of funds. To maintain this profit margin, thrifts will have to guard against increasing mortgage refinancings at lower rates of interest and holding on to low-rate, fixed-rate mortgages in case of future increases in rates paid to depositors.

Mortgage lenders earn income in several ways: as up-front fee income at the time a loan is made; from monthly interest payments received on loans held in portfolio; through fees for servicing mortgages held by them or by other institutions (collecting monthly payments, handling escrow accounts); and by selling servicing rights on loans in their portfolio to other firms. Lenders typically sell many of their loans through the secondary market immediately following settlement of those loans. Changes in market interest rates enter the picture if the lender initially holds a loan in portfolio but decides to sell it at a future date. Adjustable-rate mortgages (ARM's) protect against interest rate changes since their rates also change. But fixed-rate mortgages (FRM's) maintain the same interest rate over the life of the loan. As with bonds, the value of an FRM moves inversely with prevailing interest rates. S&L's first got into big trouble in the 1980's when dramatic interest rate increases and deposit deregulation resulted in more interest being paid on deposits than was earned from old FRM's still held in portfolio. An attempt to help S&L's survive this period by authorizing new investment powers backfired in many cases due to flawed or fraudulent use of the new lending authority. By selling FRM's and holding ARM's in portfolio, thrifts can earn both fee and interest income without subjecting themselves to interest rate risk.

Structural Change

At the end of 1994, 1,522 savings and loan associations (S&L's) and related firms with Federal insurance from the Savings Association Insurance Fund (SAIF) were headquartered in the 50 States and DC. As recently as the end of 1991, 2,083 S&L's were in business, not even counting firms placed in conservatorship status due to severe financial problems, to be run by regulators while awaiting their final fate (merger, sale to other firms, or liquidation). Not only is the trend toward fewer firms; aggregate industry assets have declined substantially. Some assets were transferred to the banking industry, but billions of dollars just disappeared as assets such as office buildings were given current market values rather than the original prices at the time loans were made.

The 496 S&L's with rural headquarters in 1994 averaged $113 million in assets; 338 were below the $100-million asset level and only 28 exceeded $300 million (app. table 2). This still leaves rural S&L's larger on average than their banking counterparts, but banks are so much more numerous that they dominate most local financial markets. However, savings and loans generally have broader branching authority than has historically been available to banks in many States, and this increases their acquisition value in the minds of large banking firms.

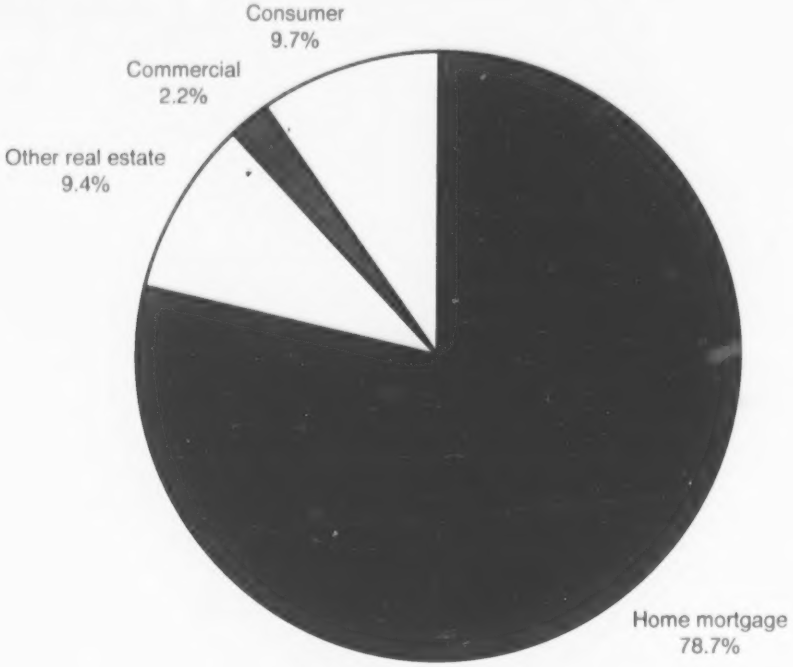
Loan Portfolios

The 1994 distribution of loan portfolios at rural S&L's gives no hint of the risky investments, such as an excess of commercial real estate loans, that destroyed many thrifts. Over three-fourths of their outstanding loans were in the traditional home mortgage category. Remaining loans held in portfolio were split mainly between consumer and other real estate loans. Only about 2 percent of the loans were for commercial purposes, suggesting that surviving members of the rural thrift community make relatively little use of their expanded lending powers to compete directly with banks on a wider front. Instead, these S&L's either returned to, or never left, their primary business of making residential mortgage loans.

Thrifts are extending less credit to the construction sector now than in the mid-1980's with much of that reduction coming in nonresidential construction. However, nonresidential construction lending by thrifts was abnormally high in the mid-1980's so current lending patterns appear to be a return to a more "normal" level, a desired result of regulatory reform.

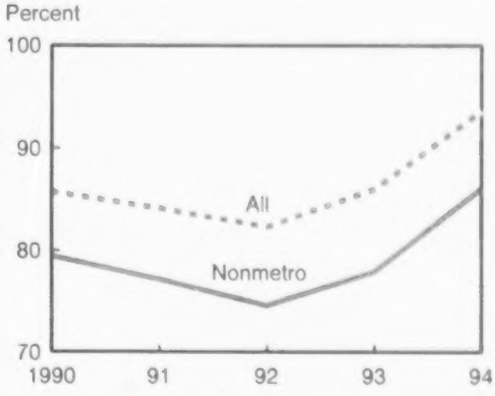
Distribution of nonmetro S&L's loans, 1994

Consumer and business loans are just a sideline to mortgage loans at most S&L's



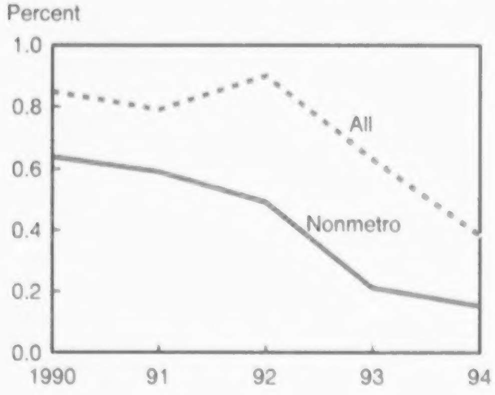
S&L's loan/deposit ratios

S&L loans declined relative to deposits due to a weak economy but have rebounded the last 2 years



S&L's loan loss provisions

Low loan loss provisions suggest that nonmetro S&L's feel their major problems are behind them



Source: All graphs calculated by ERS using data from *Thrift Financial Reports.*

Partly reflecting a return to quality, recent rural thrift mortgage lending grew as a percentage of total loans at the expense of other real estate, commercial, and consumer loans, areas wherein much of the asset deterioration in thrift portfolios occurred during the 1980's. All rural thrifts should now comply with the Qualified Thrift Lender (QTL) test, a rule that requires 65 percent of thrift assets to be mortgage-related.

Loans outstanding grew substantially in 1994 as a percentage of total deposits. But that is to be expected in a strong economy. The value of this ratio for rural S&L's, slightly over 86 percent, far exceeded the corresponding figure for rural banks.

Profitability

Private sector S&L's (those not in conservatorship) were profitable in each size category and region during 1994 (app. table 2). While their profitability still fell below that of banks and credit unions, the gap was much narrower than in 1990. Of course, much of the improvement in these sort of comparisons arises from the elimination of weak S&Ls during those years. Nevertheless, their overall profitability suggests that the remaining segment of the S&L industry is healthy.

The weak average rate of return on assets of 0.14 percent in 1990 cannot be blamed on the recession since this measure was negative in the prior 4 years, reflecting the near collapse of the thrift industry. Return on assets grew to a solid 0.93 percent by 1993, and then fell back to a still respectable 0.86 percent in 1994. Return on equity followed a comparable pattern, increasing each year from 2.34 percent in 1990 to 11.01 percent in 1993 before dropping to 9.49 percent in 1994. While much of this improvement arises from eliminating weak firms, related items are consistent with an improving profit outlook. Loan loss provisions declined from 0.64 percent in 1990 to 0.15 in 1994, and the net interest margin increased from 2.40 percent to 3.17 percent.

Improved net interest margins reflect both an improving economy and the benefits of a declining interest rate environment. A better economy means that more borrowers are able to make their payments on time, which increases the amount of mortgage interest taken in by S&L's. As for declining interest rates, long-term mortgage rates (the primary source of income for a thrift) are less sensitive to downturns than are the shorter term deposits used to fund mortgage lending activity. So while rates on new deposits fell, rates on loans did not fall as much or as fast as firms attempted to boost profit margins.

The capital/asset ratio for rural thrifts increased from 6.04 percent at the end of 1990 to 9.01 percent by December 1994. For about half of all rural thrifts unable to issue stock, their ability to improve the rate spread was critical to meeting higher capital standards by giving them the option of using retained earnings.

With average capital/asset ratios now at 9 percent, rural thrifts on balance should be able to comply with basic capital requirements. Still, some thrifts may have difficulty complying with the risk-based capital standards, which increased to 8 percent of risk-weighted assets in January 1992. Since mortgage loans and securities backed by home mortgages carry lower risk weights, thrifts have an incentive in addition to the QTL test to hold more mortgage assets in portfolio.

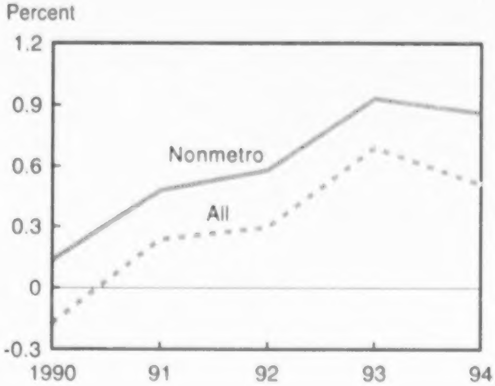
The financial prospects for thrifts are not likely to change much in the near future. More consolidation of firms together with marginal improvements in asset quality will continue, making for a healthier but smaller group of rural thrifts. Thrift emphasis on mortgage assets will continue as firms move closer toward compliance with portfolio and capital regulatory standards. At the same time, thrifts will lend less to nonresidential sectors than before. Because Congress enacted legislation permitting interstate abanking, thrifts will need to become more cost-efficient to counter increased competition that is likely to occur as barriers to market entry are reduced.

In September 1995, Congress was giving serious consideration to a proposal to eliminate the thrift industry by combining the bank and S&L deposit insurance funds and requiring S&L's to switch to bank charters. By then, the bank fund (BIF) had reached 1.25 percent of insured deposits, thus triggering a large reduction in insurance premium rates paid by banks. The corresponding S&L insurance fund (SAIF) was still years away from achieving this goal, in part because a portion of the annual premium is dedicated to helping to repay government funds used to rescue the industry. Higher costs arising from paying significantly higher premiums would presumably make it more difficult for S&L's to compete successfully with banks. Combining the two industries is one way of leveling the playing field, but is a somewhat ironic solution. Prior to deregulation of interest rates in the 1980's, banks complained that S&L's had an advantage because S&L's were allowed to pay higher interest rates on savings accounts.

Many commercial banks have been joining the Federal Home Loan Bank (FHLB) system, originally open only to S&L's. FHLB membership provides small banks a source of low-cost, long-term loanable funds for making mortgage loans to supplement their deposit funds. This, plus the memory of what happened to thousands of failed thrift institutions that drifted too far from the home mortgage business, support the notion that thrifts transformed into banks would not radically change their behavior.

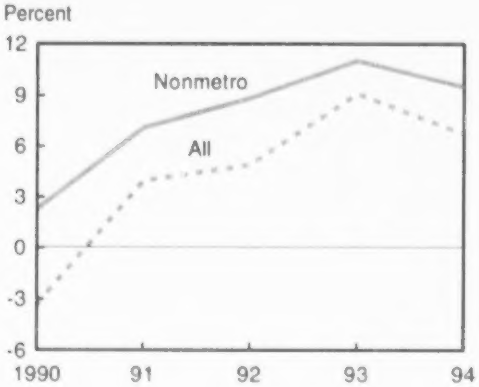
Return on S&L's assets

Nonmetro S&L's as a group are now earning a profit



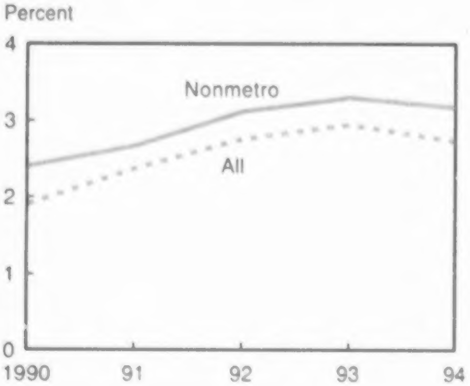
Return on S&L's equity

Those S&L's that survived have regained their financial health



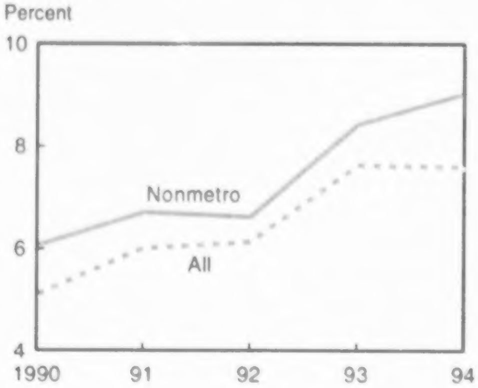
S&L's net interest margins

Net interest margins of nonmetro S&L's improved as interest rates declined



S&L's capital ratios

Nonmetro S&L's are building their capital base to meet regulator rquirements



Source: All graphs calculated by ERS using data from *Thrift Financial Reports.*

Credit Unions Maintain Solid Performance

The market share of credit unions is below 6 percent of deposits and loans held by all rural depository institutions, but they have the potential to play a more important role in rural financial markets.

The credit union industry came through the recession in fairly solid shape. This good fortune followed in part because the traditional role of credit unions, serving deposit and consumer loan needs of their members, kept them away from investments such as commercial real estate that weakened many banks and S&L's. But not all credit unions are the same and the industry is changing. Credit unions now have powers very similar to banks in that they can provide products, such as the equivalent of checking accounts (share drafts), credit cards, ATM's, first mortgage loans, and commercial loans, that range far beyond their original market of auto loans.

Structural Change

Credit unions declined much more rapidly in number over the last 10 or 15 years than did commercial banks. In percentage terms, the drop was comparable to what happened to S&L's though not as drastic. Yet the industry seems to have faced less adversity than did banks and savings and loans, with credit union assets and deposits increasing at a much faster rate than their competitors'.

Credit unions are usually associated with restrictive membership rules, such as employment at a particular firm or local government or membership in a church. But merged credit unions can define their potential membership base as the sum of those formerly served by the component credit unions. This should strengthen credit unions by providing access to bigger pools of prospective customers. Economic problems in one industry or at one sponsoring firm can be better overcome by credit unions with members in other industries and at other firms. Other credit unions have a geographic membership definition, which potentially represents a much larger pool of customers.

Combining less restrictive membership requirements with credit union cost advantages arising from volunteer labor, free office space from employers, absence of tax liability, and direct deposits and loan payments from paychecks leads some banks to argue that credit unions are potentially formidable, unfair competitors. Many expanding credit unions offer a wider range of services than was previously the case. Thus, their members can consolidate financial relationships in the credit union if they wish rather than using banks for some products (checking accounts, first mortgages) and credit unions for others (savings accounts, auto loans). An example that caught the attention of community bankers was the attempt a few years ago by the American Association of Retired People to operate a national credit union for its members. This credit union was soon closed, and bankers prefer not to see similar attempts in the future.

While some credit unions have grown into large financial institutions, most rural credit unions remain quite small, and the industry does not appear to be a major force in rural America. Far fewer credit unions than banks are found in rural counties. Of the 11,958 federally insured credit unions at the end of 1994, only 2,620 were rural (app. table 3). Credit unions also tend to be much smaller. Most rural credit unions have assets well below $50 million, with only 35 exceeding $100 million.

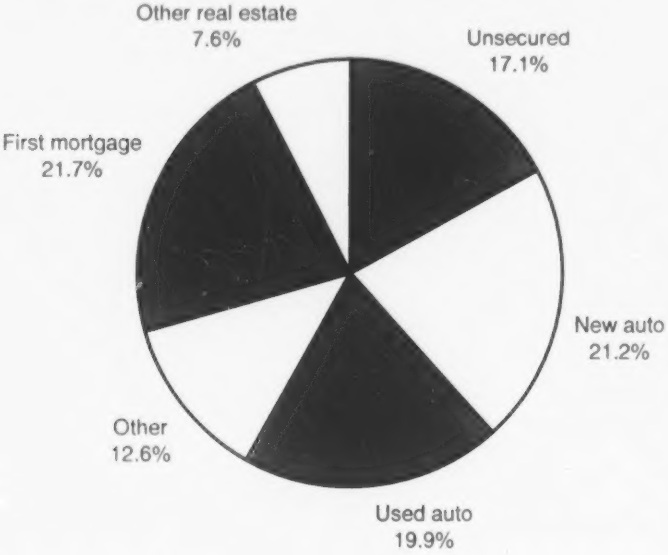
Loan Portfolios

Credit union loan portfolios are dominated by consumer and real estate loans. First mortgage loans held by rural credit unions represent the largest category in 1994, with a slight lead over loans for new autos. Used auto and unsecured loan types are not far behind. Combining used cars with new cars, and first mortgage with other real estate loans, reinforces the traditional stereotype of credit unions as a place to go for car loans. But real estate loans place a strong second, with the majority being first mortgages that were not always associated with credit unions.

Agricultural and business loans made to members are recorded on a separate Call Report schedule filed only by those credit unions for which these loans exceed their reserves. These loans are distributed among several loan categories. For example, an agriculture-related loan might show up on the main loan schedule as an unsecured loan, as a real estate loan, or under other loans. While reported agricultural and business loans are each just over 1 percent of total loans at rural credit unions in aggregate, that does not mean every credit union is immune from possible problems in specific industrial sectors. A few years ago, the largest sin-

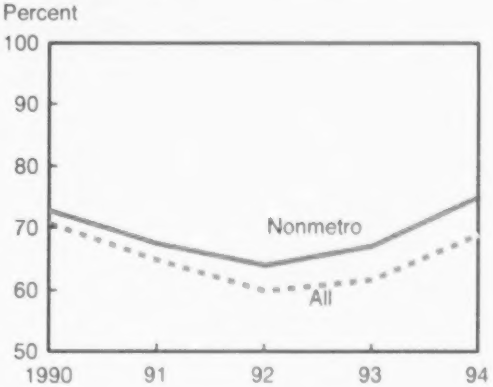
Distribution of nonmetro credit union loans, 1994

First mortgage loans are now the largest single loan category for credit unions, but auto loans combined exceed total real estate loans



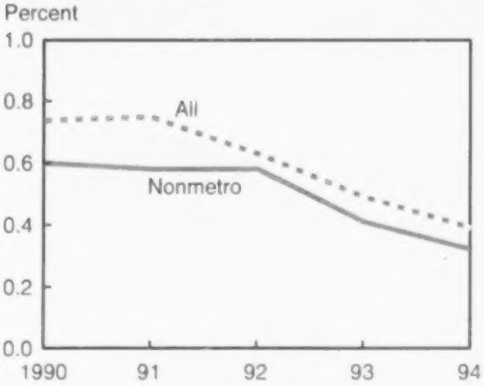
Credit unions' loan/deposit ratios

Nonmetro loan/deposit ratio declined during the recession but now exceeds the 1990 value



Credit unions' loan loss provisions

Provisions for loan losses at nonmetro credit unions held steady during the recession and then declined sharply



Source: All graphs calculated by ERS using data from *Financial and Statistical Reports of Credit Unions.*

gle loss to the credit union insurance fund arose from a credit union with many delinquent business loans. So, while rural areas may benefit if credit unions pursue a wider variety of financial services, recent years have provided abundant anecdotes of problems that can arise when firms try to expand too far or too fast.

Profitability

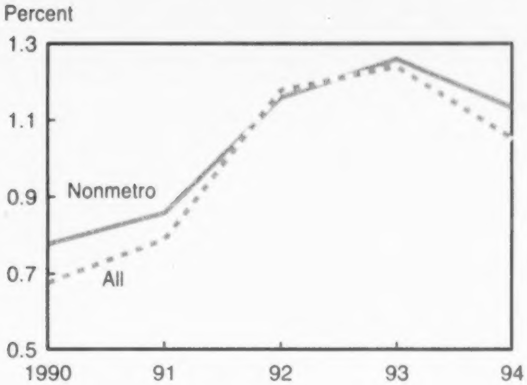
Loan loss provisions changed very little for rural credit unions during the first part of the decade, almost as if they were immune to the recession. However, loans outstanding declined to 64 percent of deposits by the end of 1992, as might be expected during a weakening economy. Because profitability and capital measurements improved moderately during those years, one interpretation is that credit unions tightened their operations, avoiding overly risky loans that plagued other financial institutions. Did credit unions do this on their own, or were they prodded to do so by prescient regulators and examiners? Was it more a demand phenomenon, with credit union members increasing their loan requests at a slower rate than they were adding to their deposit accounts? Or was it a matter of rejecting loan applications that may have been accepted in prior years due to a judgement that the loans would now be too risky?

These questions cannot be answered definitively here but were at the heart of discussions during 1992 and 1993 on whether or not banks and other lenders had created a credit crunch by refusing to make loans. One hypothesis is that people transferred deposits to credit unions because they read about frequent failures of banks and S&L's. Product mix is an alternative explanation. For the most part, credit unions do not participate in areas such as commercial real estate that led to the failure of many banks and S&L's. Avoiding "dangerous" products would explain why credit unions remained relatively healthy, but would not account for their declining loan-to-deposit ratios.

Rural credit unions clearly shared in the economy's growth during 1993 and 1994. Loans grew to 75.1 percent of deposits and loan loss provisions fell to 0.3 percent of outstanding loans. Return on assets increased to 1.26 percent for rural credit unions by the end of 1993 but dropped back to 1.13 percent in 1994. This remains above the 1-percent benchmark generally mentioned as desirable for banks and should probably be considered a healthy result. However, comparing credit union results to those of banks is difficult because credit unions aim to satisfy member-customers rather than stockholders as is the case for banks. Credit unions want to show solid financial results so that they can maintain high service levels for their members and meet regulatory requirements. But rather than trying to maximize performance measures such as return on assets, credit unions "give back" some of their potential profits by paying higher deposit rates or by charging less on loans.

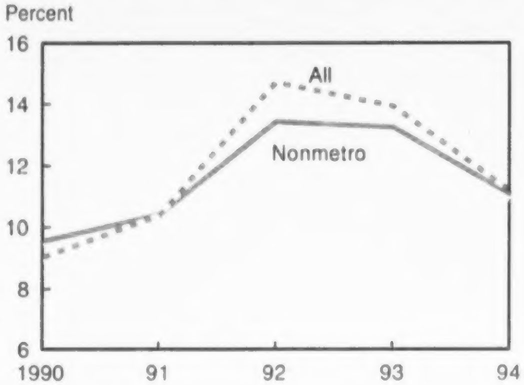
Return on credit union assets

Return on assets improved moderately during the recession and then exploded afterwards



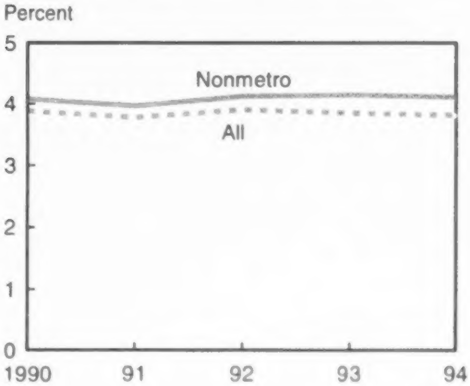
Return on credit union equity

Nonmetro credit unions averaged about the same return on equity as credit unions nationwide



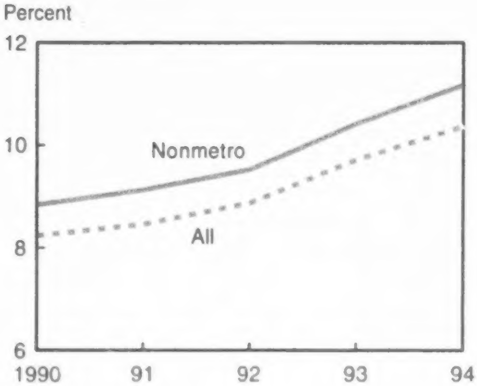
Credit unions' net interest margins

The net interest margins remained high enough to support profitable operations



Credit unions' capital ratios

Credit unions have been strengthening their capital ratios



Source: All graphs calculated by ERS from *Financial and Statistical Reports of Credit Unions.*

Financial Markets Are Rapidly Evolving, but the Rural Effects Are Unclear

A variety of laws and regulations from the Administration, Congress, and regulators of financial institutions were enacted or proposed during 1994 and 1995. Among them are interstate banking, new regulations for the Community Reinvestment Act, and legislation promoting community development institutions.

While the banking industry is reporting record profits and has rebuilt its insurance fund years ahead of schedule, the industry is being criticized on several fronts. Many people argue that banks deepened the last recession and slowed economic recovery through unwise rationing of business credit. Mortgage loan data collected under the Home Mortgage Disclosure Act (HMDA) strongly suggest that banks and other mortgage lenders discriminate against minority applicants.

Drawing rural implications is not easy in either the rationing or discrimination case. The absence of data on individual business loan applications makes formally analyzing business lending decisions by banks difficult. Financial industry representatives reject criticisms concerning credit rationing, arguing that banks do not turn down good lending opportunities and implying that the loan applicants were not good credit risks. Or they claim that overly zealous bank examiners have discouraged banks from taking on additional risk in an attempt to prevent another round of bank failures. While no reliable evidence exists on the creditworthiness of rejected loan applicants, the latter argument may have some validity as the regulatory agencies have admitted that bank examiners may have been too zealous, but they have been instructed to avoid such behavior in the future.

As for mortgage lending, the HMDA data are primarily collected from urban lenders. To the extent that rural credit markets and rural lenders behave the same as their urban counterparts, we would also expect minorities to face higher rejection rates on their mortgage applications in rural communities. But direct rural evidence is lacking. Some bankers and other mortgage industry representatives agree that HMDA evidence of discrimination, whether intentional or not, is too strong to ignore, and their institutions are taking steps to address the problem. For example, applications rejected by using standard rules of thumb are now routinely reevaluated to see if a closer examination of the applicant's finances indicates that he or she can afford mortgage payments exceeding the usual proportion of income. If these sorts of procedures become widespread, they could benefit rural residents in the coming years.

In response to these perceived problems, the Administration has proposed several changes to the Nation's banking laws. At President Clinton's request, in 1995 the Federal Reserve Board and the other bank and S&L regulatory agencies revised the regulations used to implement the Community Reinvestment Act (CRA). The goal is to increase lending in underserved areas while reducing regulatory costs for affected financial institutions. These regulations will eventually produce data on rural business loans made by large banking organizations in each of the markets they serve. This should help to evaluate whether rural communities are harmed by interstate banking. But even before the new regulations become effective, Congress was considering legislation to exempt small banks from the CRA.

Congress enacted a modified version of a Clinton Administration initiative to fund a series of community development financial institutions (CDFI). The CDFI proposal was influenced by the experience of the South Shore Bank of Chicago, which has demonstrated that it can profitably lend in low-income areas. CDFI funding was set at $382 million over 4 years, with a third of the funds going to existing banks as rebates of deposit insurance premiums for doing a good job of servicing low-income areas. This level of funding is not sufficient to measurably improve the national economy, and Congress has not agreed to appropriate the full amount. But it will help those rural communities that get some of the CDFI funds.

Surprisingly, interstate banking legislation was resurrected in early 1994 and passed that fall. Starting in September 1995, the law let bank holding companies expand to any State by acquiring existing banks. Some bank holding companies had already acquired bank affiliates in other States through a loophole allowing States to authorize such purchases. In June 1997, a holding company can convert its affiliates to bank branches unless individual States enact legislation to forbid this part of the process. Large banks favor interstate banking because they can operate branches at less cost than it takes to operate a full-scale bank affiliate. Spreading their business over more States makes banks less vulnerable to weak economic conditions in particular regions or industries, which could help rural communities that depend on agriculture or another industry. But some rural advocates fear that interstate banking might harm rural

America if banking resources are taken over by giant banks who only see small rural communities as a source of deposits.

The Administration has also worked on banking reform. The CDFI legislation includes provisions to lessen the regulatory burden of banks and to facilitate secondary markets for small business loans. The regulatory changes will promote a modest increase in rural lending by lowering bank costs and by giving bankers more time to make loans. If an active secondary market develops for small business loans, rural business lending will increase as banks lower their loan interest rates and sell loans to other investors. A congressional proposal to combine the various Federal regulators of commercial banks (Federal Reserve Board, Comptroller of the Currency, and Federal Deposit Insurance Corporation) and S&L's (Office of Thrift Supervision) into a single agency failed to pass in 1994. The Federal Reserve Board (Fed) would handle monetary policy, and the FDIC would concentrate on its deposit insurance role. The Fed's claim that a supervisory role complements its monetary policy work led to a possible compromise in which the Fed would supervise the largest banking organizations and a sample of other banks. The current session of Congress may instead merge OTS with the Comptroller and have thrifts convert to banks. In addition to reducing the number of regulators, this approach is driven by a desire to address the competitive disadvantage of S&L's resulting from lower deposit insurance premiums for banks.

Congressional attempts to repeal or modify the Glass-Steagall Act took something of a roller coaster ride throughout 1995, and the final outcome remains very much in doubt. Glass-Steagall generally prevents banks from combining with brokerage firms and insurance companies. Agreement that the act is outmoded is widespread, but opposition to parts of the proposal is strong. Insurance agents do not want competition from banks. Small banks would like to sell insurance policies, but many fear the concentration of economic power if large banks merge with large securities and insurance firms. Previous attempts to create financial supermarkets have had limited success. But repealing Glass-Steagall potentially would lead to more competition in these financial services for rural residents.

Recent Factors Affecting Financial Markets

Factor:	*Possible Rural Effects:*
• Revision of Community Reinvestment Act regulations—	
- Reduce regulatory costs	Encourage lending in underserved areas; should make data on rural business loans available from large banks
- Move to exempt small banks	If enacted, will reduce the number of small banks required to report
• Enacted interstate banking effective September 1997	May allow some larger rural banks to diversify their portfolios by lending to a wider array of customers; may reduce banking services in some rural areas if large banks move in or take over existing banks and are interested only in rural deposits
• Reduce regulatory burden on banks	Allow rural bankers more time to make loans
• Facilitate secondary market for small business loans	Allow rural banks to reduce risk of carrying many small business loans
• Move to combine bank and S&L industries or their regulatory agencies	May assist S&L's to remain healthy competitors to banks; may promote consistency in regulating different types of financial firms
• Efforts to repeal or modify Glass-Steagall Act	May give rural residents more choices for obtaining financial services; may hasten consolidation of of financial firms

Rural Banks Should Be Able To Keep Pace With Changes In Rural Credit Markets

Rural banks are likely to continue to do well financially in the coming years. Those that choose to remain independent should be able to use technology to provide a wide range of financial services to their customers.

Ongoing and anticipated changes should make the remainder of the 20th century exciting, or at the very least quite interesting, for the financial industry and for those who analyze its performance and structure. This includes rural financial institutions, although they may experience a less rapid pace of change than is in store for many of their urban counterparts.

The commercial banking industry reported record profits in 1993, due primarily to low interest rates, which facilitated widening interest rate margins, and an improving economy that sharply lowered loan losses. The $43.1 billion in net income represents a return on assets (ROA) of 1.2 percent; ROA had never before achieved the 1-percent level for a whole year. Years of interest rates paid on deposits falling faster than those charged on loans resulted in high net interest margins. A stronger economy meant that loans were more often repaid on time, so that banks could safely set aside fewer funds to cover future loan losses. These same trends also helped credit unions and S&L's. Rural institutions, as a group, shared the good fortune of their industry. That was definitely the case for bank failures, as no rural banks failed during 1994.

Bank performance remained solid in 1994, and was expected to stay strong in 1995 and 1996. However, profit growth slowed down as the Federal Reserve boosted short-term interest rates. Industry profits grew a bit to $44.7 billion in 1994, but this represented a decline in ROA to 1.15 percent as industry assets grew faster than profits. Evidently the Fed is concerned that rapid growth in the U.S. economy could ignite a new round of inflation, though that has not yet shown up in data on wage and price changes. The Fed's stated goal is to achieve conditions of neutrality in its monetary policy, allowing the economy to grow at a normal long-term rate without dependence on artificial factors such as the Federal Reserve's effort to deliberately lower interest rates earlier in the decade. Initially, long-term rates increased faster than short-term rates. But once the financial markets were convinced that the Fed would not be swayed from doing what it thinks is best, long-term rates moderated somewhat in the first part of 1995. By midyear, signs of slower economic growth led the Fed to reverse course and begin to lower short-term rates.

Technological advances that threaten the health of small banks, a category that includes most banks headquartered in rural communities, also provide opportunities for these same banks not only to remain independent but to thrive. Large regional banks have been talking (and acting) for more than a decade about the need to grow through mergers and acquisitions if they wish to compete in global financial markets. Yet small banks can provide their customers with innovative services by working together or with other firms. A small bank does not need to start a proprietary mutual fund — it can simply provide space in its offices for employees of brokerage firms.

Remaining S&L's are doing much better for the same reasons as commercial banks. But the exceptionally good bank results pose a potential future problem for thrifts. The insurance fund for banks is being replenished much faster than that of S&L's. Current legislation permits regulators of banks and S&L's to lower insurance premiums only after their respective insurance funds reach 1.25 percent of insured deposits. The bank fund achieved this goal around May 1995, but the S&L industry needs another 7 years at the present rate. Thus, banks will pay less for deposit insurance, which will make it more difficult for S&L's to compete. Proposals have been made to merge the bank and S&L insurance funds, but bank officials oppose this idea.

The outlook for rural financial institutions can perhaps best be expressed as cautiously optimistic. With all of the changes and problems that occurred in financial markets during the past 15 years and those that are likely to take place over the next few years, outright optimism is probably not very practical. But rural banks and other financial institutions have shown an ability to survive by adapting to a changing financial environment.

The statistics on banks, S&L's, and credit unions cited previously in this issue may somewhat oversimplify the structure of rural financial markets, both by missing other participating institutions and by incompletely portraying those institutions that are covered. A variety of other institutions are active in rural credit markets. The Farm Credit System—a collection of cooperative lending institutions—is a key player in agricultural lending. It is lobbying to have its Federal charter amended to allow it to serve the credit needs of the nonfarm rural community as well, but it now has only a minor role in nonfarm lending. Other Federal and State agencies operate credit programs that serve rural communities, and a number of small private and quasi-public lenders also provide financial support to segments of the rural community. However, their scope of operations is generally much narrower than that of depository institutions, and they quite often operate in conjunction with the commercial banks and other depository institutions which are the focus of this report.

Having to limit the discussion to available data on the headquarters of bank, S&L's, and credit union headquarters may also simplify the situation by not revealing the effects of branch offices in rural areas. The only data available on branch offices is for banks and indicates the branches' locations and amounts of deposits. Those data show that only 536 urban banks had rural branches, but their total of 4,568 rural branches is by no means insignificant next to the 14,643 rural offices (including 6,056 bank headquarters) controlled by rural-based banks. The share of deposits coming from branches in areas other than where the headquarters is located may indicate why some oppose more liberal branching within and across States. Rural-based banks have most (93.3 percent) of their offices (headquaters and branches) in rural areas and collect most (95 percent) of their deposits from rural offices, and the bulk of their lending is probably also with rural customers. But urban-based banks have nearly 18 percent of their offices in rural areas but gather only 10 percent of their deposits through them, which in the minds of some calls into question the importance urban-based banks place on their rural activities.

A related but more ambiguous problem comes about as a result of multibank holding company activity. As a means of surmounting State restrictions on bank branching, holding companies own separately chartered banks in many locations. Affiliates with rural headquarters appear as rural-based banks in the tables, but if the parent holding companies impose centralized control, the affiliates may behave very differently than locally owned banks in terms of the types of loans they offer and the standards that borrowers must meet. These comments on bank branching apply even more so to S&L's. Credit union data are probably the closest to being single-unit operations; some branches exist but not many, and the markets of most credit unions can safely be assumed to lie within the rural county or metro area containing the credit union office.

Bank headquarters and branches by location, 1993

Metro banks control, but do not heavily depend on, thousands of nonmetro offices

Type of bank	Headquarters	Branch offices: Nonmetro	Branch offices: Metro	Total deposits	Nonmetro share of deposits
	Number			Billion dollars	Percent
All banks	11,190	13,155	37,998	2,318.3	18.6
All banks with one or more nonmetro offices	6,592	13,155	21,604	1,397.3	30.8
Nonmetro-based	6,056	8,587	1,057	338.9	95.0
Metro-based with one or more nonmetro offices	536	4,568	20,547	1,058.5	10.3
Metro-based with no nonmetro offices	4,598	0	16,394	920.9	0.0

Source: FDIC Summary of Deposits, June 1993.

New Community Reinvestment Act Regulations May Spur Rural Lending

New Community Reinvestment Act regulations will hold large urban banks accountable for their rural lending and simplify exam procedures for small rural banks.

As one of his 1993 domestic economic initiatives, President Clinton asked the Federal regulators of banks and savings and loan associations (S&L's) to revise the regulations that govern the Community Reinvestment Act (CRA). The President wanted modified procedures that will encourage more creditworthy lending by financial institutions and meet concerns that the current approach wastes resources and does not produce the intended results. The Federal Reserve and other agencies circulated drafts of revised regulations for public comment in December 1993 and in October 1994. Thousands of comments were received each time. The final regulations were released in April 1995, to take effect January 1996 for small financial institutions and July 1997 for larger lenders.

The CRA itself is not being amended because its goal remains intact: prevent redlining (taking deposits from inner cities and lending them elsewhere) by making sure that creditworthy borrowers in all communities are treated fairly. Interest in the CRA has heightened in recent years. Community interest groups use CRA objections in cases of proposed bank mergers to extract community lending promises from banks. Banks were accused of slowing recovery from the last recession through unwarranted credit rationing. And extensive data on mortgage applications made available under the Home Mortgage Disclosure Act (HMDA) strongly suggest that current practices discriminate against minority mortgage applicants.

Broad agreement exists that past methods of implementing the Community Reinvestment Act were not effective, but various parties disagree over how to improve administration of the act. Critics claim that prior regulations stressed style over substance. In preparation for their periodic CRA examinations, banks spend large amounts of time and resources to document how they promote community lending, whereas actual lending is, or should be, the underlying issue.

The new regulations walk a tightrope between goals that may be impossible to meet simultaneously. Regulators wish to induce greater lending in low- and moderate-income areas with regulations that make compliance easier to measure and less costly to follow. Lenders are encouraged to apply innovative programs to increase lending in low- and moderate-income areas, yet the loans must be consistent with traditional standards of default risk. The difficulty of achieving this task may explain why even before the new regulations became effective, Congress was considering legislation to exempt small banks from the CRA.

Summary of New Regulations

CRA examinations are based on 12 performance factors. For large banks, the new regulations replace these factors with three tests: lending, investment, and service. These tests stress outcomes, not the methods or effort behind the outcomes. Small banks, meaning those under $250 million in assets, are eligible for streamlined exams. All banks may select the alternative approach of developing a strategic plan. As before, CRA performance comes into play as a factor when regulators make decisions concerning applications for bank mergers or establishing new branches. Earlier drafts of the regulations strengthened CRA by authorizing enforcement actions against banks not involved in expansion applications, but regulators withdrew this proposal from the final regulations due to a lack of legal authority.

Each bank must define a geographic assessment area that covers most of its loans. The assessment area cannot arbitrarily exclude low- or moderate-income areas. If the bank has more than one office, a single assessment area may incorporate many or all of the bank's offices. However, rural and urban offices cannot be placed in the same assessment area, nor can an assessment area hold offices from two consolidated metropolitan statistical areas (CMSA's). Hence, banks with geographically dispersed branch offices must specify a series of assessment areas. The regulations do not specify how examiners will aggregate CRA performance across multiple assessment areas. However, since large banks must compile loan data for each assessment area, performance by rural offices of large banks should influence their overall CRA ratings.

The three tests have five possible levels: outstanding, high satisfactory, low satisfactory, needs to improve, or substantial noncompliance. Because the CRA Act dictates four rating levels, the final composite rating is based on four levels obtained by combining high satisfactory and low satisfactory categories. Using five levels at earlier stages of the process addresses concerns that the current system is less effective due to the satisfactory rating achieved by most banks. The lending test receives greater emphasis — an overall rating of satisfactory requires at least a low satisfactory rating on the lending test.

Banks subject to the lending test must compile data for loans to small businesses and to small farms originated by or purchased by the banks. They must summarize these data for their regulators based on loan location, loan size, and annual revenue of the borrowing firms. Banks may optionally provide similar data for consumer loans. They must report the total number and amount of community development loans. Banks subject to HMDA must provide more geographic detail on their rural mortgage loans and loan applications than was previously the case. HMDA generally applies to urban lenders, but any rural activity also shows up in their annual reports.

Regulators have the task of compiling the loan data and preparing disclosure statements. The statement for an individual bank will show distributions of loans to small businesses and farms by county, income level of census tracts within the county, and firm revenue. Regulators will also provide aggregate disclosure statements for the rural and urban portions of each State.

The investment test examines the effect of a bank's qualified investments that help low- and moderate-income portions of the assessment area. Examples include investments in affordable housing, community development projects, and small business development corporations. Thus, banks with weak direct lending in low- and moderate-income areas may improve their CRA ratings by investing in these areas.

The service test examines whether reasonable proportions of a bank's branch offices are in low- and moderate-income areas or can be easily reached by many of those residents. This test can also take into account community development financial services, such as technical assistance to groups that provide low- and moderate-income housing, credit counseling, and low-cost government-check cashing.

Streamlined CRA examinations are specified for banks with assets below $250 million and that are not part of a bank holding company with aggregate assets above $1 billion. CRA performance is evaluated on the basis of factors such as the loan-to-deposit ratio, proportion of loans made in the assessment area, and the distribution of loans by income level, size of business or farm, and location. Examiners will take into account other factors such as loan sales (which can make loan-to-deposit ratios look artificially low), local economic conditions, and bank size.

Small Banks and Loan-to-Deposit Ratios

Small banks below $250 million in assets naturally applaud the proposal for streamlined CRA examinations. Bankers argue that besides making their lives easier, the proposal to streamline might benefit rural and other small communities. Since small banks cannot afford to hire full-time CRA compliance officers, lessening the amount of time required by top managers to monitor the bank's CRA performance could allow these managers to put more effort into making loans.

Bankers sometimes claim that rural community banks by definition should achieve satisfactory ratings on CRA examinations and therefore should escape the high regulatory costs associated with documenting their CRA performance. That is, banks in small towns must and do serve their local customers. However, community interest groups (such as ACORN, the Association of Community Organizations for Reform Now) reject the concept outright, arguing that lending practices of small banks should be scrutinized just like those of large banks.

The table shows the size distribution of rural-headquartered banks, along with the distribution of loan/deposit ratios for each bank size category. Most rural banks hold less than $250 million in assets, but many do not reach the 60 percent loan/deposit ratio that was mentioned in an earlier draft of the new regulations. The proposal estimated that less than 10 percent of total assets are held by banks that satisfy both the asset and loan ratio conditions, but that proportion is much higher in rural communities.

The proportion of banks satisfying the 60-percent cutoff will vary year to year with the business cycle and seasonally within the year, particularly for banks that make many agricultural loans. The proposal indicates an intention to take seasonality factors into account, though the details are not spelled out. But the 60-percent figure may prove obsolete in a few years if banks continue the trend of holding securities rather than loans. That is, suppose banks make as many loans in future years, but sell more loans on the secondary market and purchase securities backed by similar loans from many different banks as is done with mortgage loans. Banks might be safer by depending less strongly on local prosperity, which in turn might allow them to better serve the local economy. Yet banks would be penalized if following such a strategy resulted in loan/deposit ratios that fell below levels considered appropriate by regulators.

Further, the majority of banks have less than $250 million in assets and will not be required to provide loan data for the lending test. While large banks dominate national banking industry assets, bank offices in many rural communities represent a mixture of local and nonlocal banks. How are lending test results interpreted if they ignore lending by banks that are important locally yet too small to participate in these tests? CRA examiners have access to bank loan files and in theory could compute much of the loan data to be supplied by larger banks. But it is not likely that this information will be widely available for analysis by community interest groups or other interested observers.

Prospects for Rural Communities

While large banks with rural and urban offices must define and provide loan data for separate rural and urban assessment areas, missing details in the new regulations leave unclear the extent to which poor CRA performance in small rural offices may affect a large firm's overall CRA rating. This approach may help address fears concerning interstate banking and intrastate branching if banks that use rural offices as a source of funds to be loaned elsewhere face the prospect of lower CRA ratings due to poor performance in their rural assessment areas. Analysis of HMDA mortgage data has influenced leading mortgage companies to devise programs for giving a second look at rejected applications from minority applicants. CRA loan data for other types of loans from banks with more than $250 million in assets is potentially just as important. But if banks can escape close scrutiny by doing well just in their main markets, while ignoring the credit needs of the rural communities they serve, then CRA could be largely ineffective in rural areas served by urban-based banks.

Consolidation within the banking industry increases the importance of regional and money-center banks in rural communities, and this process may accelerate in response to the 1994 interstate banking legislation. Even if the CRA rating primarily reflects a bank's urban performance, community groups can monitor the local performance of outside banks serving their communities if they have easy access to the CRA loan data. If data are quickly and inexpensively made available to the public, CRA will have a much greater effect on lender performance, particularly in rural communities served by banks with large branching networks.

Rural-headquartered banks by asset level and loan ratio

Most rural banks hold less than $250 million in assets, but many have loan/deposit ratios below the 60-percent cutoff

Assets	All banks	By loans as a percentage of deposits					
		0-20	20-40	40-60	60-80	80-100	Above 100[1]
	Number of banks						
All asset levels	5,837	60	554	1,693	2,691	787	52
Below $50 million	3,228	44	353	1,031	1,455	334	11
$50 to less than $100 million	1,535	14	143	436	717	213	12
$100 to less than $250 million	892	2	55	208	435	177	15
$250 to less than $500 million	135	0	3	16	69	43	4
$500 million to $1 billion	29	0	0	1	10	11	7
Above $1 billion	18	0	0	1	5	9	3

[1] Deposits are not the sole source of funds loaned by banks, which allows the loan/deposit ratio to exceed 100 percent.

Source: Federal Reserve Board of Governors, *Report of Condition and Report of Income*, December 31, 1994 .

Rural Businesses Felt Well Served by Banks in the 1980's

Rural businesses were more satisfied with their banking experiences than urban businesses in 1983, 1985, and 1987. During that period, the small business credit market went from conditions of weakness to rapid expansion to solid growth as the national economy went from recession to recovery to boom. Surveys of small businesses conducted by the National Federation of Independent Business (NFIB) in 1983, 1985, and 1987 provide the basis for these findings. The surveys, focused on the relationship between small businesses and their banks, showed that rural businesses were happier with their loan terms even though they faced higher interest rates than urban businesses in the 1983 survey.

Rural businesses generally rated their banks higher than did urban businesses.

Rural and Urban Interest Rates

The interest rate is the most direct measure of the cost of credit. Do changes in the prime rate of interest at giant New York City banks affect loan rates paid by small rural Midwest businesses? At one time, the answer may have been no. But deregulation of interest rates and technological advances make it possible for rural residents to easily move their funds around the world if local banks fail to pay the going rate on deposits. If national economic conditions affect rural bank costs, one could reasonably expect rural loan rates to be similarly affected. This article presents evidence that rural business people are now subject to the same forces as their urban colleagues.

If rural credit markets were not integrated with the national market, then one might expect rural interest rates to be more stable over the business cycle than are urban interest rates. But if the general economy affects rural and urban lenders in a similar fashion, these lenders should respond similarly in terms of changing their willingness to approve loan applications and the rates they charge on loans. Average loan rates charged by rural and urban lenders might differ if they tend to serve different mixes of firms in terms of size or industry. Rural survey respondents did average lower loan sizes. But if credit gets tight and the cost of funds increases in national money markets, loan rates will increase for both groups if rural credit markets are integrated with the rest of the national economy.

The NFIB survey obtained interest rates for loans and lines of credit as either a flat percentage rate for fixed-rate instruments or as a difference from the prime rate for variable-rate instruments. Average rural interest rates were slightly higher than large city and urban interest rates in the majority of comparisons covered by table 1, but the differences were not statistically significant. These interest rates strongly support the hypothesis that the rural and urban credit markets are integrated, at least in the pricing of credit.

Behavior of the Markets Over the Business Cycle

The picture of credit markets that emerges over the business cycle also supports the hypothesis that rural and urban credit markets are well integrated. Prime plus interest rate distributions were fairly stable during the 3 years and rural rate distributions were similar to those reported by the urban and central city firms. The only statistically significant differences in distributions were greater variations in 1985 credit line rates for urban businesses than for rural firms, and for the 1985 large city rates compared with those prevailing in 1987.

Level loan and credit line interest rates fell by statistically significant amounts between 1983 and 1985 and again between 1985 and 1987. In 1983, large city and urban credit loan rates ranged more widely about their average values than did those of the rural firms.

One interesting distinction between the rural and urban and the rural and large city markets emerges. Rural firms in each year tended to stay closer to their average loan sizes, level loan rates, and prime plus loan rates than was the case for the urban and large city firms. The smaller ranges suggest that rural lending is more homogeneous than is urban lending. The greater homogeneity of rural lending may reflect a greater homogeneity of rural borrowers or rural banking practices or both.

Other characteristics of rural business loans also show that the borrowing experience of rural businesses was similar to, and possibly better than, that of urban and large city businesses over the business cycle. Turn-down rates on loan applications were similar for all three groups in 1983 and 1985 and lower for rural firms than for either urban or large city firms in 1987. Rural businesses were also more often satisfied with their loans, though they were slightly more likely to receive less than the amount wanted, particularly in 1987.

Average interest rates and loan sizes, 1983-87

Rural firms obtained smaller loans but were charged competitive interest rates

Location/year	Credit line rates		Loan rates		
	Level	Prime plus	Level	Prime plus	Loan size
	Percent				*Thousand dollars*
Rural:					
1983	17.08	1.75	16.62	1.76	58.19
1985	13.15	1.76	13.36	1.48	75.22
1987	11.48	1.76	11.72	1.63	77.24
Urban:					
1983	16.91	1.53	16.75	1.65	128.35
1985	13.33	1.68	12.74	1.66	325.40
1987	11.75	1.67	11.63	1.68	116.15
Large city:					
1983	16.68	1.55	16.92	1.57	170.42
1985	12.93	1.61	11.80	1.55	325.82
1987	11.49	1.56	11.67	1.61	123.59
All locales:					
1983	17.00	1.57	16.69	1.67	98.31
1985	13.24	1.69	13.13	1.61	211.43
1987	11.62	1.70	11.67	1.67	101.19

Source: Calculated by ERS from Surveys of Small Businesses conducted by the National Federation of Independent Business.

Results of loan applications

Rural firms were more likely to have their loan applications accepted, but not always for the full amount they requested

Location/year	Loan application rejected	Loan terms not satisfactory[1]	Less than amount wanted
		Percent	
Rural:			
1983	11.0	23.4	8.9
1985	21.9	NA	5.3
1987	14.8	18.5	13.1
Urban:			
1983	12.0	27.2	8.5
1985	23.3	NA	7.2
1987	17.0	21.6	11.7
Large city:			
1983	10.3	30.4	8.9
1985	21.8	NA	8.0
1987	19.5	23.9	11.7
All locales:			
1983	11.5	25.2	8.7
1985	22.7	NA	6.3
1987	16.1	20.4	12.2

NA=not available.

[1] Data reported as not available in 1985 because 97.8 percent of the respondents did not answer this question.

Source: Calculated by ERS from Surveys of Small Businesses conducted by the National Federation of Independent Business.

How Businesses Felt About Banking

Business owners were also asked how they felt about banking and their banks. Nine characteristics of the business-bank relationship were specified and businesses were asked to rate the importance of these characteristics in conducting banking transactions. The left column of the table on perceptions lists the characteristics in the order of importance determined by averaging over all responses to all three surveys. This order was more or less maintained in each year and within each geographic group. The one notable exception was that the characteristic "provides helpful business suggestions" was ranked last overall but first in the 1985 survey. The importance of business advice in 1985 is explained by the large majority of businesses in the survey that year that said their primary use of credit was to establish a new business.

How Businesses Felt About Their Banks

The most interesting results from the surveys were those dealing with how businesses rated the actual performance of their own banks on these same characteristics of the business-bank relationship. Businesses rated their banks' performance on the nine characteristics in a different order than they rated the importance of the characteristics. The right panel of the table on perceptions shows the order, based on an average of all three surveys. The only deviation from this order was that rural businesses placed "offers a wide range of banking services" fifth, just below "reliable source of credit," instead of first.

Ranking by performance — not importance — shows how successful the banks were. If a characteristic is not considered particularly important by many businesses, how well banks performed that characteristic does not matter that much. But performance is relevant for those characteristics that were more often cited as important by firms responding to the surveys. The results suggest room for improvement by banks in the areas deemed most critical by small businesses.

On average, rural businesses gave their banks better ratings than the ratings urban and large city businesses gave to their banks. This was true both in the average of all 3 years and in the individual years. The exception is that urban and large city businesses generally gave their banks better ratings on providing a wide range of services. This result is not very surprising. Larger cities tend to be served by larger banks that are able to provide a more complete set of financial services.

The two most important characteristics for economic growth and development are the cost and availability of credit. Businesses in all three areas gave their banks similar ratings on providing the "cheapest money" available. But, rural businesses gave their banks significantly better ratings on being a reliable source of credit in all 3 years. *[James McGlone, formerly an economist with the Economic Research Service. Contact Dan Milkove, the author of all other articles in this issue, at 202-219-0318, if you have questions concerning this article.]*

How businesses felt about banking and their banks

A low interest rate on bank loans is welcome, but businesses place greater value on being confident of obtaining a loan and in dealing with someone familiar with their business

Ranked by importance in conducting banking transactions	Ranked by businesses' perceptions of bank performance
Knows you and your business	Offers a wide range of banking services
Reliable source of credit	Convenient location
Offers the "cheapest money" available	Easy access to loan officer
Easy access to loan officer	One person always handles your credit needs
One person always handles your credit needs	Reliable source of credit
Convenient location	Knows you and your business
Offers a wide range of banking services	Offers the "cheapest money" available
Knows your industry	Knows your industry
Provides helpful business suggestions	Provides helpful business suggestions

About the NFIB and the Surveys

The National Federation of Independent Business (NFIB) is an association of businesses that are closely held and managed by their owners. In 1983, 1985, and 1987, NFIB surveyed its membership about the state of the businesses' finances and the relationship between the business and its bank. The surveys requested factual information on the size, location, and nature of the business, interest rates paid on loans, types of loans held, and purpose of the loans, and elicited opinions on the importance of various aspects of the business-bank relationship and on how well their bank performed in those aspects of the relationship.

This report is based on those surveys, which are interesting to analyze because they cover the end of the 1982 recession, the recovery period, and the period of prosperity that the overall economy achieved in the latter part of the 1980's. These three distinct periods reveal differences in the gap between rural and urban economies at different phases of the business cycle. They also reveal differences in the relationship between banks and businesses at different parts of the business cycle.

Governed by population, businesses responding to the survey were asked to report their location as a rural area (less than 15,000 population), a small city (15,000 to 100,000), a city (100,000 to 1,000,000), or a metropolis (more than 1,000,000). These definitions correspond to none of the usual definitions of rural or nonmetro in the rural development literature. In this article, "urban" refers to all businesses placing themselves in areas other than rural, and "large city" combines the city and metropolis businesses (but not small cities).

Banks typically price their business loans in one of two ways. Either the loan interest rate is fixed (level), or it can vary over time by adding a fixed amount to the prime rate (prime plus). The NFIB surveys also distinguish between rates on loans in which the funds are disbursed at the time the loan application is accepted (loan rates in this report), and cases in which a firm is given a line of credit that can be accessed when needed (credit line rates).

While the tables report averages for interest rates and other aspects of the credit process, I also studied the distributions of rural and urban responses. Distributions of interest rates that banks charge customers in rural and urban areas should be similar if rural credit markets operate efficiently and are well integrated with the national market. If rural and urban patterns are similar, this similarity increases confidence that comparisons of the average interest rates are meaningful.

Data Sources

Several data sources were used for this report. Commercial banks, savings and loan associations, and credit unions are all required to file periodic reports regarding their financial health to their respective regulatory agencies. The reports generally contain balance sheet and income statement information, although the types of reports filed by depository institutions differ between, and sometimes even among, lender categories.

Commercial Banks

We used data on all commercial banks located in the 50 States that are insured by the Federal Deposit Insurance Corporation (FDIC) and that report nonzero assets and deposits. Bank level income and balance sheet information for these firms comes from the *Report of Condition and Report of Income* database maintained by the Board of Governors of the Federal Reserve System. Data on deposits held by individual bank branches as of June 30, 1993, were derived from the FDIC's Summary of Deposits database.

Savings and Loan Associations

We used data on all U.S. savings and loans that reported nonzero assets and deposits and were not part of the managed consignment group of thrifts operated by the Federal Government until they could be sold or closed, as reported to the Office of Thrift Supervision. The data were taken from the Thrift Financial Reports.

Credit Unions

We took credit union data from the Year-end Financial and Statistical Reports of Credit Unions, as reported by the National Credit Union Administration.

Definitions

This report provides data for several measures commonly used to analyze the performance and health of financial institutions. Those measures are described briefly below.

Abbreviations and agency acronyms

ARM = Adjustable-rate mortgage
BIF = Bank Insurance Fund
FDIC = Federal Deposit Insurance Corporation
Fed = Board of Governors of the Federal Reserve System
FHLB = Federal Home Loan Bank System
FRM = Fixed-rate mortgage
OTS = Office of Thrift Supervision
S&L = Savings and loan association
SAIF = Savings Association Insurance Fund

Capital ratios: Equity capital as a percentage of total assets.

Loan/deposit ratio: Total loans as a percentage of total deposits.

Loan loss provisions: Funds set aside out of current income and added to reserves used to cover possible current or future write-offs of bad loans. Measured as a percentage of outstanding loans.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and a total population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Net interest margins: The difference between interest income and interest expense as a percentage of total assets.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Problem loans: Outstanding loans that have been delinquent for at least 30 days as a percentage of equity capital.

Return on assets: Profit as a percentage of total assets.

Return on equity: Profit as a percentage of total equity.

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Appendix table 1—Nonmetro banks: Average operating characteristics , 1994

Item	All firms	Assets: Under $100 million	Assets: $100-$300 million	Assets: $300-$500 million	Assets: $500 million to $1 billion	Assets: Over $1 billion	Regions: Northeast	Regions: Midwest	Regions: South	Regions: West
Number										
Banks	5,837	4,763	945	82	29	18	228	2,993	2,194	422
Thousand dollars per bank										
Net income	965	475	1,898	4,731	8,891	51,634	3,718	642	1,147	823
Assets	80,672	41,057	154,643	385,223	686,172	4,316,925	349,663	56,252	89,482	62,738
Average percentage[1]										
Loan/deposit ratio	70.11	62.37	68.31	74.52	86.27	91.76	79.01	68.02	69.41	64.25
Loan/asset ratio	58.60	54.50	58.91	62.44	68.57	64.20	61.45	58.55	57.84	55.89
Net interest margin	4.16	4.14	4.12	4.03	4.74	4.15	4.20	3.98	4.22	4.69
Return on assets	1.20	1.16	1.23	1.23	1.30	1.20	1.06	1.14	1.28	1.31
Return on equity	13.16	11.67	13.42	14.54	15.99	16.14	13.38	12.03	13.88	14.69
Capital/asset ratio	9.89	10.72	9.86	9.07	9.22	8.38	9.05	10.23	9.96	9.77
Loan loss provisions/ total loans	0.31	0.23	0.25	0.22	0.79	0.47	0.39	0.22	0.37	0.19

[1] These items were computed by summing the numerator across all firms, summing the denominator across all firms, and then dividing the numerator by the denominator and multiplying by 100 to convert the result to a percentage.

Source: Calculated by ERS using data from the *Report of Condition and Report of Income* database maintained by the Board of Governors of the Federal Reserve System.

Appendix table 2—Nonmetro savings and loans: Average operating characteristics, 1994

Item	All firms	Assets: Under $50 million	Assets: $50-$100 million	Assets: $100-$300 million	Assets: Over $300 million	Regions: Northeast	Regions: Midwest	Regions: South	Regions: West
Number									
S&L's	496	187	151	130	28	37	217	199	43
Thousand dollars per S&L									
Net income	968	233	640	1,418	5,552	676	1,025	937	1,069
Assets	113,069	28,445	70,401	171,033	639,220	82,503	120,927	108,806	119,442
Average percentage[1]									
Loan/deposit ratio	86.07	78.25	82.18	86.85	90.25	86.39	86.22	86.70	82.41
Loan/asset ratio	68.82	66.71	69.83	68.98	68.65	68.82	68.36	70.23	65.26
Net interest margin	3.17	3.33	3.29	3.11	3.13	3.27	3.02	3.33	3.26
Return on assets	0.86	0.82	0.91	0.83	0.87	0.82	0.85	0.86	0.89
Return on equity	9.49	7.85	9.53	8.79	11.19	8.68	9.61	9.53	9.28
Capital/asset ratio	9.01	10.42	9.54	9.43	7.76	9.45	8.83	9.03	9.64
Loan loss provisions/ total loans	0.15	0.13	0.08	0.11	0.25	0.21	0.18	0.14	0.03

[1] These items were computed by summing the numerator across all firms, summing the denominator across all firms, and then dividing the numerator by the denominator and multiplying by 100 to convert the result to a percentage.

Source: Calculated by ERS using data from the *Thrift Financial Reports* maintained by the Office of Thrift Supervision.

Appendix table 3—Nonmetro credit unions: Average operating characteristics, 1994

		Assets				Regions			
Item	All firms	Under $50 million	$50-$100 million	$100-$300 million	Over $300 million	Northeast	Midwest	South	West
					Number				
Credit unions	2,620	2,507	78	33	2	360	951	876	433
					Thousand dollars per credit union				
Net income	136	83	827	2,135	7,743	141	107	143	184
Assets	10,773	6,696	68,023	159,227	439,783	11,534	9,299	10,095	14,750
					Average percentage[1]				
Loan/deposit ratio	75.12	75.41	71.56	75.11	91.65	73.29	76.34	76.31	73.00
Loan/asset ratio	66.21	66.29	63.83	66.06	79.73	64.96	67.40	66.77	64.58
Net interest margin	4.10	4.27	3.86	3.79	3.98	4.25	4.08	4.05	4.09
Return on assets	1.13	1.10	1.05	1.23	1.48	1.09	1.02	1.27	1.11
Return on equity	10.91	10.35	11.21	12.21	12.27	11.43	10.18	11.18	11.16
Capital/asset ratio	11.17	11.48	10.18	10.96	12.68	10.45	10.79	12.19	10.77
Loan loss provisions/ total loans	0.32	0.33	0.27	0.30	0.51	0.34	0.23	0.37	0.37

[1] These items were computed by summing the numerator across all firms, summing the denominator across all firms, and then dividing the numerator by the denominator and multiplying by 100 to convert the result to a percentage.

Source: Calculated by ERS using data from the *Year-end Financial and Statistical Reports of Credit Unions* from the National Credit Union Administration.

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Rural Conditions and Trends

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Rural Industry

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Executive Editor's Note

This is the inaugural issue of our new three times-a-year publication schedule. Each of the three issues will be dedicated to a specific topic area—rural industries, rural socioeconomic characteristics, and rural effects of Federal policies and programs. The issues will no longer be referred to by season because they will be published as soon as possible after we receive the most up-to-date data on the topics.

As promised in the Fall 1995 issue, this issue provides much more detailed information on rural industries than we had published under the old format. Some articles are enriched by information on value of production, productivity, or value of exports, adding to our understanding of employment conditions in rural industries.

The articles report on current trends in farm-related industries, mining, manufacturing retailing, banking, and government. Additional articles discuss recent changes in the general economy which affect rural areas and the significance of international trade to rural areas. Obviously, not all rural industries are covered. Next year's Rural Industries issue will include articles on additional services industries, forestry, and other industries not included in this issue.

This is my last issue of *Rural Conditions and Trends*. Serving as executive editor since summer 1991 provided me with the very rewarding opportunity to work closely with authors to put out informative, timely situation and outlook reports on rural America. Nevertheless, I am happily moving back into research here at ERS while Douglas Bowers moves from research to the executive editorship. I would like to thank the readers who provided positive feedback and constructive criticism during my tenure. I hope that you will continue to provide Doug with that support.

Linda M. Ghelfi

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Rural Conditions and Trends

July 1996, Vol. 7, No. 1

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National Growth Continues to Benefit Rural Industries

The rural economy has grown faster than the national economy since the recession of the early 1990's. Growth has been strongest in services industries while employment in some other sectors, such as agriculture and mining, has continued to decline.

Rural industries continue to fare well as the national economy grows following the 1990-91 recession. Employment in most major rural industries increased in the early 1990's. The exceptions were farm and mining employment, which fell, and employment in finance, insurance, and real estate, which held steady. Overall, rural job growth has outpaced urban growth. The earnings gap between urban and rural jobs narrowed in 1993 for the first time since 1979, suggesting that rural earnings may at least be starting to hold their own relative to urban earnings. Population in rural areas has also rebounded as migration from urban to rural locations has overtaken rural-urban migration. The national economy's slower growth during 1995 may have affected rural areas less than urban because of strong exports and durable goods manufacturing, both of which are important to rural areas.

These trends are a change from the 1980's when urban areas held a clear advantage in job, earnings, and population growth. Coming off a prosperous decade in the 1970's, rural areas in the 1980's suffered from the 1980-81 recessions, foreign competition in manufacturing and agriculture, and a farm financial crisis which reduced land values and forced many highly leveraged farmers out of business.

Long-Term Trends Show Growth in Services, Declines in More Traditional Rural Industries

As in the rest of the economy, rural areas have shown the strongest growth in service industries. Broadly defined, services include wholesale and retail trade; transportation and utilities; the finance, insurance, and real estate sector; and a variety of other industries in recreation, food service, education, and health care. Services accounted for 50.7 percent of all rural employment in 1993, compared with 65.1 percent for urban areas. In both metro and nonmetro areas, services have been steadily increasing their share of jobs. Nonmetro employment in services is spread more evenly across the country than is the case for natural resources and manufacturing. Nonmetro counties with unusually high service employment, however, are often those that specialize in providing particular services like tourism, recreation, regional trade, or services related to retirement.

Employment in the relatively high-paying natural resources jobs, including farm proprietors, miners, and forest products workers has continued its downward trend. The change has been especially dramatic in farming. In 1940, farmers accounted for nearly 20 percent of the national labor force, and over half the rural population still lived on farms. Today only 2 percent of the workforce is directly engaged in farming, and farm families make up less than 10 percent of the rural population. Productivity improvements have enabled a much smaller number of farmers to produce more food on an area of land only slightly smaller than it was a half century ago. Moreover, many of the remaining farmers depend on nonfarm jobs for most of their household income. This shift away from farming has done more than any other single factor since World War II to change the makeup of the rural economy. Future job declines in farming are likely to continue but at a slow pace.

Nevertheless, the farm sector and its associated industries remain a vital part of the U.S. economy. Farming and related industries involving the production, processing, and marketing of agricultural products is the subject of two articles in this issue. The many jobs associated with agriculture account for a quarter of rural jobs and nearly a sixth of all jobs nationally. Employment continues to shift from jobs close to the farm to service jobs closer to consumers. The first article, on farm and farm-related employment, uses 1992 County Business Patterns data to show how jobs have dropped in farm production, forestry, fishing, and agricultural inputs while rising sharply in wholesale and retail trade, partly in response to the growing trend to eat away from home and to consumer demand for prepared foods. The second article uses input-output analysis to show the importance that the production, processing, and marketing of farm products has for the national economy. By estimating employment in the food and fiber sector in the States, it becomes clear that this sector is an important contributor of jobs in every part of the country, although of less significance in the Northeast. These two different approaches result in some different employment numbers, but the conclusions are similar: despite the steady decline in farm jobs, the sector as a whole retains a large role in the economy.

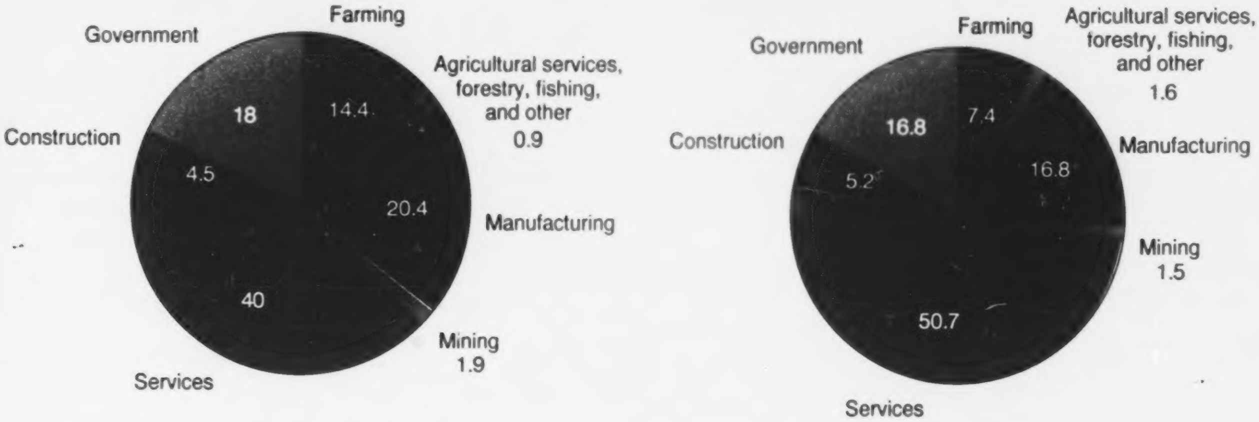
Agricultural exports have long been important to the farm economy, but since the early 1970's production for export has been especially strong. During fiscal year 1995, these exports set a new record of $54.2 billion. Agricultural exports generated about 791,056 jobs in 1994, about a third of them in rural areas. Every region benefits from export-related jobs, especially the Corn Belt and Northern Plains where much of the grain produced for export originates.

Employment in mining and forestry, like in farm production, has sharply dropped. Productivity improvements have enabled mining, oil, and gas companies to reduce their labor forces while increasing output. In forestry, the long-term trend toward mechanization has permitted a smaller number of workers to produce almost twice the output of timber products as the industry did 40 years ago. Because of the geographical concentration of mining and forestry, job losses in these industries have been especially hard on rural communities in West Virginia and the Rocky Mountain States.

Manufacturing employment has grown slightly in rural areas since 1991 in contrast to a decline in urban areas. Much rural manufacturing is routine work performed by workers who are less highly trained and paid than urban manufacturing workers. Rural manufacturers have been affected by inexpensive imports produced in countries with lower labor costs. Companies requiring complex skills have often preferred to locate in urban areas where they can find a larger, more varied pool of trained workers and a higher concentration of services. Nevertheless, manufacturing accounts for almost 17 percent of rural jobs. The spread of advanced technology in rural areas, especially in communications, may make those areas more attractive in the future to companies offering higher wage jobs.

Nonmetro employment by industry

Service industries have increased their share of nonmetro employment over the past quarter century while natural resource industries have decreased their share.



1969

1993

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Jobs in government have been in a long-term upward trend for many years. Government employment is responsible for 16.8 percent of rural jobs. The great majority are State and local jobs, which have grown along with population. The number of Federal employees in rural areas is expected to decline over the next few years as a result of downsizing. Some of the functions currently performed by Federal employees may be handled by State and local employees in the future.

The Future May Bring More Consolidation and Global Competition

Consolidation has been a major industrial trend in rural as well as in urban areas. Farms today average almost three times their 1940 size. The number of firms engaged in mining and forestry has dropped considerably in recent years. Manufacturing and financial service companies are experiencing a wave of mergers and restructurings. In the service area, restaurant and retail chains have made inroads in towns where small, independently owned businesses had been the norm. These changes reflect not only new technologies but the increasing integration of the rural economy with the national economy.

The rural economy is also being affected more than it used to be by global economic developments. Manufacturers have had to compete against the lower wage bases of less developed countries. However, the relatively low value of the dollar has benefited companies and farmers that produce export goods. The recent General Agreement on Tariffs and Trade (GATT) and North American Free Trade Agreement (NAFTA) point to a future of freer trade with more competition as well as new opportunities for rural industries.

Articles in this issue report on current trends in the farm-related industries, mining, manufacturing, retailing, banking, and government. Additional articles discuss recent changes in the general economy which affect rural areas and the significance of international trade to rural areas. Obviously, not all rural industries are covered. Next year's Rural Industries issue will include articles on additional services industries, forestry, and other industries not included in this issue. *[Douglas E. Bowers, 202-219-0484, dbowers@econ.ag.gov]*

Economic Growth Moderates in 1995

U.S. economic growth slowed in 1995 compared with 1994, with inflation up slightly. Rural areas likely benefited from strong export and durable goods growth. Consumer spending growth will determine the strength of Gross Domestic Product growth in 1996.

The U.S. economy slowed in 1995 as GDP growth fell to an estimated 2.1 percent, down from 1994's 3.5 percent. Industrial production—mining, manufacturing, and utility output—which had increased a strong 5.0 percent in 1994, still grew a healthy 2.5 percent in 1995. Growth in business equipment spending dropped to 7.5 percent—down from 1994's stellar 10.0 percent. Employment was up over a million jobs in the last half of 1995 compared with the end of 1994, while over 100,000 manufacturing jobs were lost. Rural jobs increased slightly by 1.3 percent in the third quarter of 1995 over the third quarter of 1994.

Consumer Spending Keeps Economy Growing

Consumer spending for 1995, based on the preliminary GDP estimate grew about 2.4 percent—down from 1994's 3.0-percent growth. Relatively low interest rates, strong consumer balance sheets, widely available credit, improved cash flow from 1994's mortgage refinancing boom, and good growth in employment and disposable income in 1995 kept consumer spending strong. The growth in durables spending came largely in furniture and appliances spending, as auto sales fell from 1994's high levels. Spending on clothing increased modestly, leading lackluster growth in nondurable spending. Services spending grew strongly, reflecting good disposable income growth and high levels of consumer confidence. Consumer prices increased about 2.8 percent, up only slightly from the 2.6-percent increase in 1994.

Investment, Government Spending, and Trade Present Mixed Picture

Business investment—inventory accumulation, business equipment spending, and business plant spending—was mixed in 1995. As most analysts expected, inventory accumulation slowed through most of the year. Because the inventory-to-sales ratios rose in 1995 from 1994's very high ratios, inventory accumulation is expected to slow more in the next several quarters. The boom in business equipment spending slowed from 1994, but outpaced other major spending categories due to favorable financial market conditions and high business profits. Business plant spending growth increased substantially as new plants were built responding to recent high capacity utilization rates. Producer price increases were modest for the year. Higher energy prices, induced by cold weather, brought a sharp end-of-year rise of 0.5 percent in producer prices. Few analysts saw this as a sign of accelerating inflation.

National economic indicators

GDP growth slowed in 1995; unemployment declined with modest inflation increase

Item	1994	1995
	Percent	
Real gross domestic product growth, percent, annualized[1]	3.5	2.1
Consumer Price Index growth, percent, annualized	2.6	2.8
Prime rate, percent	7.1	8.8
Unemployment rate, percent	6.1	5.6
Industrial production, annualized change in index	5.9	3.2
Industrial production, manufacturing, annualized change in index	6.6	3.5

[1] GDP growth is measured using the 1992 chain-weighted index.

Source: Calculated by ERS, based on data from the Bureau of Economic Analysis, the Bureau of Labor Statistics, and the Federal Reserve Board.

Lag in Real Wages Could Dampen Consumer Spending

Real wages have been linked both cyclically and secularly—along a trend—with productivity. Most economists agree that real wage increases come from productivity increases. That is, employers can only afford to pay higher real wages if labor productivity rises. In addition, productivity usually rises very sharply 1 or 2 years after the beginning of an economic expansion. After the 1981-82 recession, real wages rose 1.4 percent in 1983 while labor productivity rose 1.3 percent. Above-average real productivity gains were made during 1983-86. Although real wages actually declined, benefits rose. Some observers suggest that total labor compensation, wages and benefits, is a better measure of earnings. Indeed, the employment cost index, a measure of labor compensation, shows that real compensation growth matched the productivity increases of the 1980's. For rural areas, however, real compensation increases fell short of those experienced in urban areas, as measured by the employment cost index.

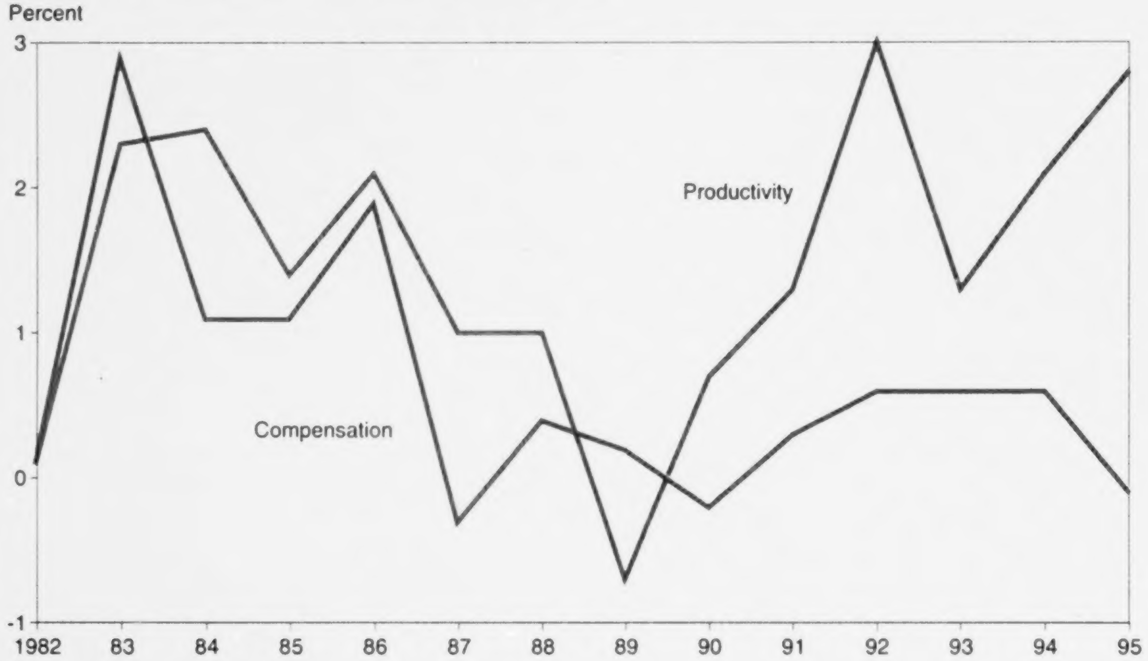
The current economic expansion has seen strong productivity growth but weak growth in real compensation. Real compensation growth has been only one-half a percent per year during 1991-94, while productivity growth has averaged about 2 percent per year. For the first half of 1995, real compensation declined by 0.1 percent versus the first half of 1994, while productivity rose 2.8 percent, yielding the largest excess of productivity gains over real compensation growth since the employment cost index was first reported in 1981.

This real compensation growth has been weak despite strong disposable income growth. Over 1991-94, real per capita disposable personal income grew an average of 1.0 percent a year, with a growth rate of 1.4 percent in 1994. Preliminary data indicate that real disposable income growth was stronger in 1995.

If indeed real compensation growth continues to be slight, it will probably hamper growth in consumer spending. Over the last year, aggregate consumption has been able to rise despite small real wage and benefit increases largely because employment has expanded.

Annual change in productivity and the Employment Cost Index, 1982-95

Since 1990, productivity has increased faster than compensation



1995 is first half only.
Source: Bureau of Labor Statistics.

Government spending, despite a notable increase in the third quarter, slowed growth for the year. Exports, motivated by the strength of the German mark and the Japanese yen, grew 8.3 percent despite stagnation in the Japanese economy and in the economies of other major trading partners, such as Canada and Mexico. Concomitantly, sales of imports grew 7.9 percent. However, since the 1994 level of imports was substantially higher than exports, the real trade balance for 1995 deteriorated. This $5.5 billion-increase in the real trade deficit was a drag on domestic economic growth.

Rural Economy Sensitive to Changes in Trade, Manufacturing

Little rural data from 1994 and 1995 are currently available; however, the data that are available indicate that the employment growth in rural areas continued over 1995, albeit at a slower pace than in 1994. In addition, rural unemployment appears to have held fairly steady over the first three quarters of 1995. It is very likely that the strong performance of U.S. exports has helped rural areas keep unemployment down over 1994-95. ERS research suggests that U.S. exports, being predominantly manufacturing and agricultural goods, have larger effects on rural unemployment than on general unemployment. Rural areas probably benefited from the good growth in consumer durables spending in 1995. Rural areas have a larger share of employment in manufacturing than urban areas, and in particular, rural areas had disproportionately more durable goods employment in 1993 (the latest data available), 8.4 percent of rural jobs are in durable manufacturing versus 6.8 percent of urban jobs. Although manufacturing jobs decreased nationally during 1995, durable-goods employment held steady.

Outlook Is for Modest Growth through 1996

Continued good financial market conditions as reflected in relatively low interest rates and a relatively weak dollar provide the background for the 1996 outlook. The near-term outlook is for moderate GDP growth of 2.2 percent. The trade deficit is expected to improve, although there may be some volatility from quarter to quarter. The improved trade situation will be driven by exports as the U.S. dollar continues to be soft and as the economies of the major U.S. trading partners experience slightly higher GDP growth than in 1995. Agricultural exports are among the areas expected to be strong. Larger exports in 1996 and stronger growth in the manufacturing sector should benefit rural economies.

Aggregate investment will boost overall growth, but less than it has in the last 3 years. Plant and equipment investment growth are both expected to continue, but more slowly than in 1995. The rate of inventory accumulation is likely to decrease. Given that investment and exports are expected to be strong, manufacturing output growth should be stronger than that of the overall economy. A final factor moderating GDP growth is that government spending will be down from 1995.

Consumer Spending Is the Major Question Mark

Consumption—the largest component of GDP—is expected to grow modestly in the near term. Many analysts expect that real wages per capita will grow, causing disposable income per capita to grow. Combined with an expected slight increase in employment, these factors should lead to modest growth in aggregate consumer spending. The increase in real wages is expected for two reasons. The U.S. economy has seen high productivity growth over the last 2 years without substantial real wage increases, despite shortages of workers in some labor markets. Real wage increases historically follow productivity increases. Since real wages have not yet risen substantially during this expansion, the coming year will likely see some increase. Recent high corporate profits increase the ability of firms to pay higher future wages.

The risk in the outlook is that if real wages do not increase as expected, and if indeed employment growth is modest, then consumer spending could stagnate. As consumption is two-thirds of GDP, stagnant consumer spending could significantly lower GDP growth in 1996. *[Data as of February 26, 1996. David A. Torgerson, 202-501-8447, dtorg@econ.ag.gov, and Karen S. Hamrick, 202-219-0789, khamrick@econ.ag.gov]*

Service Industries Expected to Dominate 1994-2005 Job Growth

Rural employment is more concentrated than urban employment in industries and occupations expected to decline or grow slowly over the next 10 years. However, a large share of rural employment is still in occupations expected to grow.

The Bureau of Labor Statistics (BLS) has recently released its projections of employment from 1994 to 2005, updating projections released in 1993. [See U.S. Department of Labor, Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 118, No. 11, Nov. 1995 for more details.] BLS does not specifically project rural employment trends; however, their national projections have rural implications. BLS projects employment losses in agriculture, mining, and manufacturing, industries with larger shares of rural than urban employment. BLS projects growth in all major occupation groups, except for the group including agriculture, forestry, and fishing which is projected to lose 112,000 jobs.

BLS Long-Term Projections

The prospects for employment by industry and specific occupations depend primarily on major economic developments. Projections of these developments are relatively uncertain very far in the future. Thus, BLS considers three scenarios: low growth, moderate growth, and high growth. Several features are common to all scenarios. Total labor force growth is expected to be slightly less than that in the 1980's, Federal spending generally, and defense spending particularly, is expected to decrease, and the trade balance is expected to improve. The labor force will, on average, grow older as baby boomers continue to move into the 45-64 year-old age group. The BLS moderate-growth scenario assumes annual GDP growth of 2.3 percent, less than the 1983-94 annual average growth rate of 2.9 percent, whereas annual rates of 1.6 percent and 3.0 percent are assumed for the low and high scenarios.

Service Industries Projected to Grow Fastest

BLS projects 18 million new jobs under the moderate-growth scenario. Almost all of these jobs will be in the service sector. Half will be in the services industry of the services sector, that is, in the hotel and other lodging and personal services industries. Large employment gains are also expected in the health services, business services, and retail trade industries of the services sector. BLS stresses, however, that there will be job openings for workers in all industries and at all levels of education and training due to 32 million job openings expected to replace departing workers.

Employment is projected to decline in agriculture, mining, and manufacturing during 1994-2005 under the moderate-growth scenario. All these industries had larger shares of rural employment than urban employment in 1993. Between the low- and high-growth scenarios, employment change ranges from -5.3 to -7.2 percent for agriculture, from -25.1 to -15.3 percent for mining, and from -11.4 to -1.6 percent for manufacturing. The agriculture industry is projected to have fewer jobs under a high-growth scenario due to higher productivity necessitating fewer workers and to a high-growth economy generating more job opportunities outside of agriculture. By comparison, the number of agriculture jobs increased and the number of mining and manufacturing jobs declined during 1983-94. Agriculture gained 115,000 jobs (3.3 percent), mining lost 351,000 jobs (36.9 percent), and manufacturing lost 126,000 jobs (0.7 percent).

Among the projected growth industries, rural areas had about the same proportion of employment in construction and in retail trade as urban areas, but a lower proportion in services in 1993. The services industry is expected to grow the most with projected national growth between 36.6 percent and 41.8 percent. Services also had the largest employment gain from 1983 to 1994, 60.0 percent.

Industry employment

Agriculture, mining, and manufacturing employment expected to shrink in next 10 years...

	1993 employment distribution			
Industry	Nonmetro	Metro	1983-94 national change	1994-2005 projected change, moderate-growth scenario
		Percent		
Agriculture[1]	9.0	2.0	3.3	-6.2
Mining	1.5	.5	-36.9	-27.0
Construction	5.2	4.9	26.9	9.8
Manufacturing	16.8	12.6	-.7	-7.2
Transportation, communications, utilities	4.1	4.8	21.1	7.1
Wholesale trade	3.3	5.0	16.2	6.8
Retail trade	17.0	16.7	31.1	13.0
Finance, insurance, and real estate	4.4	8.0	26.8	6.3
Services	21.9	30.5	60.0	39.0
Government	16.8	15.0	20.5	9.8
Total employment	100.0	100.0	24.0	13.9

[1] Includes farm, agricultural service, forestry, and fishing industries.

Source: Bureau of Economic Analysis data and Bureau of Labor Statistics projections.

Occupational employment

Along with shrinking employment in agricultural occupations

	1993 employment distribution			
Occupation	Nonmetro	Metro	1983-94 national change	1994-2005 projected change, moderate-growth scenario
		Percent		
Executive, administrative and managerial	8.3	12.8	34.5	16.8
Professional specialty	11.4	14.7	37.0	29.3
Technicians and related support	3.1	3.9	30.2	19.7
Marketing and sales	9.2	11.3	33.3	18.0
Administrative support occupations, including clerical	14.2	18.0	22.8	4.3
Service occupations	15.9	14.3	29.9	22.7
Agricultural, forestry, fishing, and related occupations	3.3	1.2	1.3	-3.0
Precision production, craft, and repair	12.4	10.0	10.3	5.9
Operators, fabricators, and laborers	22.2	13.8	11.5	4.4
Total employment	100.0	100.0	24.0	13.9

Source: Current Population Survey data and Bureau of Labor Statistics projections.

Employment Expected to Grow in All Major Occupations Except Agriculture

Despite declines in some industries, employment in all major occupational groups is expected to increase under the moderate growth scenario, except for agricultural occupations which are projected to lose 112,000 jobs. BLS projects that three of the four fastest growing occupational groups will be those requiring relatively high levels of education or training: executive, administrative, and managerial; professional specialty; and technicians and related support. Rural areas have proportionately fewer of these workers than urban areas. Rural areas also have a larger share of workers employed in precision production, craft, and repair, and operators, fabricators, and laborers—occupational groups that are expected to have substantially less employment growth than in other groups.

Below the major group level, projected growth rates vary widely among specific occupations. The five specific occupations that are expected to generate the most jobs are cashiers, janitors and cleaners, retail salespersons, waiters and waitresses, and registered nurses. About 10 percent of rural employment is in these five occupations, which is about the same share as of urban employment. The five occupations expected to lose the most jobs are farmers, typists and word processors, bookkeeping clerks, bank tellers, and sewing machine operators who sew garments. Rural areas have a slightly larger proportion of employment in these occupations, 3.4 percent of rural employment versus 2.8 percent of urban employment.

Prospects for Rural Employment Growth

Over the last 10 years, employment in rural areas has decreased as a share of total U.S. employment. Although a large share of rural employment is now in occupations expected to grow the most by 2005, employment in industries and occupational groups with projected declines or slow growth are concentrated in rural areas. This suggests that rural economies are somewhat disadvantaged in their positioning for the expected work force changes over the next 10 years. Recent experience, however, showed that many rural areas were able to increase employment through manufacturing, although manufacturing jobs decreased nationwide. If rural areas do not utilize their comparative advantages or do not adapt their industry and occupational structure, rural employment will continue to be a shrinking share of the national labor force. *[Karen S. Hamrick, 202-219-0789, khamrick@econ.ag.gov]*

Farm and Farm-Related Industries Provided a Quarter of Nonmetro Jobs in 1992

Farming and its related industries provide almost 25 percent of total nonmetro employment. Farm production and its closely related industries have suffered from a long-term decline in employment while retail food industries have enjoyed substantial job gains.

Farming and its related industries provided 21.6 million jobs in 1992, the most recent year for which we have data. Almost 6 million of these jobs were in nonmetro counties, accounting for a quarter of all nonmetro employment. Farm production, plus associated agricultural services and forestry and fishing, accounted for slightly over 2 million of the farm and farm-related jobs in nonmetro areas. Agricultural wholesale and retail trade industries, including grocery stores that provide the final linkage between farmer and consumer, contributed the largest number of nonmetro farm-related jobs, almost 2.5 million. Industries in nonmetro counties that process and market agricultural goods after they leave the farm accounted for another 1.2 million jobs. Agricultural input industries, such as farm machinery manufacturers and suppliers, added about 200,000 jobs. Indirect agribusiness, like chemical and fertilizer mining and food products machinery manufacturing, supplied another 131,000 positions.

Share of Jobs in Farm and Farm-Related Industries Varies by Region

Nonmetro counties in the Corn Belt and Appalachia contain the largest number of farm and farm-related jobs. Together these two regions account for over one-third of all farm and farm-related employment in nonmetro areas. While farm and farm-related industries provide about 25 percent of total nonmetro employment, the Northern Plains depends the most on these industries for jobs—they account for almost 30 percent of the region's total nonmetro employment. In contrast, these industries provide only 18.5 percent of the nonmetro jobs in the Northeast.

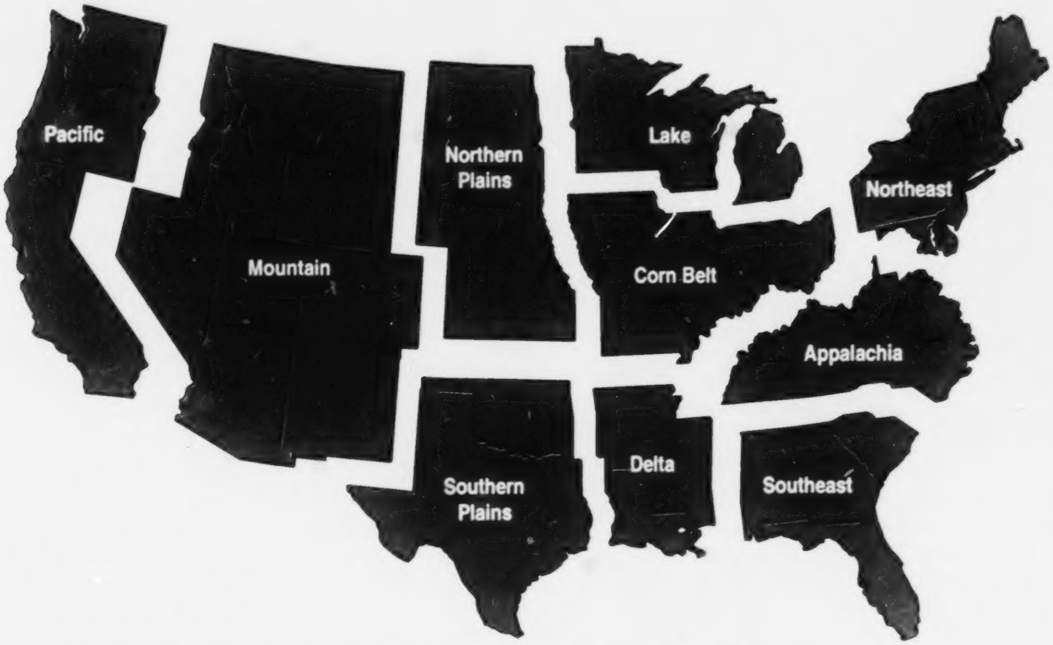
The heavily farm-dependent Corn Belt leads all regions in nonmetro jobs in farm production and its closely associated industries. With its reliance on farming, the Corn Belt unsurprisingly has almost twice as many agricultural input jobs as any other region. The largest number of agricultural processing and marketing jobs are in Appalachia and the Southeast. Most of the processing jobs in these two regions, about 75 percent, are in apparel and textile manufacturing. The Corn Belt and Appalachia also surpass other regions in agricultural wholesale and retail trade employment. Employment in these industries is not driven by farming activity but rather by population and related consumer demand. Nonmetro populations of 8.8 million in the Corn Belt and 8.4 million in Appalachia, far exceeding the nonmetro population in other areas, explain the larger number of jobs in agricultural wholesale and retail trade industries in these regions.

Many Farm and Farm-Related Jobs Are in Nonfarm Counties

At the county level, farm and farm-related industries accounted for almost 40 percent of the jobs in nonmetro counties where farming is the primary economic activity. A county's primary economic activity is determined through the Economic Research Service's classification of nonmetro counties into six economic types: farming-dependent, mining-dependent, manufacturing-dependent, government-dependent, services-dependent, and nonspecialized. Although farm and farm-related jobs are most important in farming-dependent counties as a percentage of total county employment, large numbers of these jobs are located in manufacturing- and services-dependent and nonspecialized counties. Farm and farm-related jobs in these county types account for about 25 percent of total county employment.

Farm production contributed greatly to the total number of jobs in some types of counties which were not principally dependent on farming. Three-quarters of all farm production, agricultural services, forestry, and fishing jobs were located outside farming-dependent counties, especially in nonspecialized and manufacturing-dependent counties. As a percentage, though, farm production and its associated jobs provided 22 percent of the employment in farming-dependent counties while they accounted for 10.4 percent of

U.S. farm production regions



Note: Alaska and Hawaii are not part of the farm production region classification scheme, although they are included in U.S. totals.

Nonmetro farm and farm-related employment by region, 1992

Wholesale and retail trade accounted for most farm and farm-related employment

Region	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
			Number of jobs			
United States	5,972,611	2,015,597	195,844	1,178,961	2,451,273	130,936
Appalachia	1,001,859	290,992	18,766	313,953	354,316	23,832
Corn Belt	1,038,085	403,114	50,950	147,514	408,053	28,454
Delta States	437,690	132,874	15,206	117,364	159,792	12,454
Lake States	553,036	208,376	23,123	66,542	242,658	12,337
Mountain	446,821	143,576	12,036	34,594	244,115	12,500
Northeast	498,600	101,791	8,070	83,649	295,921	9,169
Northern Plains	460,291	218,777	26,881	67,083	145,420	2,130
Pacific	298,413	109,642	8,393	24,551	151,168	4,659
Southeast	670,031	145,872	17,030	250,269	236,286	20,574
Southern Plains	492,435	241,539	14,694	60,442	170,939	4,821

Source: Calculated by ERS using U.S. Department of Commerce data.

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employment in nonspecialized counties and only 6.5 percent in manufacturing-dependent counties.

Jobs in the wholesale and retail trade of agricultural products accounted for the largest share of farm and farm-related jobs in most county types. Farming-dependent counties were the exception. In these counties the wholesale and retail trade industry provided only 8.7 percent of the employment compared with farming's 22 percent share. Population in farming-dependent counties is generally low, thus limiting the demand for wholesale and retail outlets and their associated employment.

Industries Peripheral to Agriculture Drive Employment Gains During 1975-92

Farm and farm-related employment in nonmetro counties increased 8.7 percent, a gain of 478,000 jobs, during 1975-92. Most of this increase occurred before 1982. Although the overall number of jobs rose, the gain was restricted to those industries peripherally related to farming, principally agricultural wholesale and retail trade and indirect agribusiness. Employment growth in agricultural wholesale and retail trade industries exceeded 77 percent, a gain of almost 1.1 million jobs. Job growth in wholesale and retail trade industries, closely linked to growth in population, is also related to income increases and demographic changes. Increased personal income has shifted some food preparation to retail outlets. Expanding numbers of dual-income and single-parent families, pressed for time to cook meals, have changed consumer habits, such as dining out more frequently or purchasing prepared foods. Compared with wholesale and retail trade, job gains in indirect agribusiness were much smaller, only 27,000 jobs.

Nonmetro employment change for farming and its most closely related industries was quite different compared with that in peripheral industries. Farm production, along with agricultural services, forestry, and fishing, lost 548,000 jobs, or a 21.4-percent decline during 1975-92. Farm employment suffered from long-term trends in farm consolidation and persistent increases in productivity that continue to reduce labor requirements needed to produce agricultural goods. Industries closely related to farming also suffered employment declines. Agricultural input industries lost 44,000 jobs, an 18.3-percent decline, while employment in agricultural processing and marketing industries decreased by 24,000 jobs, down 2 percent. Processing and marketing employment was negatively affected by mergers and acquisitions which swept the industry during the 1980's. This consolidation, plus the replacement or retooling of labor-intensive plants to rely on more automated machinery, reduced labor needs.

Job Growth Strongest in Mountain States

The Mountain States gained the largest number of nonmetro farm and farm-related jobs, over 120,000 positions or almost a 37-percent increase during 1975-92. Almost all the growth was in agricultural wholesale and retail trade industries, which gained about 124,000 jobs, a doubling of these jobs since 1975. Much of the agricultural trade industry growth was tied to the region's almost 1-million-person gain in nonmetro population. Job losses in farm production employment, which partially offset overall employment gains in other regions, remained relatively minor in the Mountain States, declining only 5.4 percent.

Decline in the Corn Belt contrasted with job growth in the Mountain States. The Corn Belt, one of only two regions where nonmetro farm and farm-related jobs declined, lost the most employment, over 26,000 jobs. A loss of over 135,000 farm production and agricultural service jobs, combined with employment declines in agricultural input and processing and marketing industries, contributed to the overall poor performance of the Corn Belt. The region's severe losses in these sectors were mitigated by strong gains in agricultural wholesale and retail trade.

Only in the nonmetro Northeast did agricultural processing and marketing industries fare worse than in the Corn Belt. Over 44,000 processing jobs, a 34.5-percent decline, were lost in nonmetro counties of the Northeast. Most of the losses in the region were in industries that manufacture apparel, textiles, and leather goods as these industries faced stiff competition from other regions and foreign producers.

Nonmetro farm and farm-related employment by primary economic activity of county, 1992

Large numbers of farm and farm-related jobs are in counties in which farming is not the primary economic activity

County type	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
			Number of jobs			
All nonmetro counties	5,972,611	2,015,597	195,844	1,178,961	2,451,273	130,936
Farming[1]	794,335	456,025	45,671	108,806	179,195	4,638
	(38.4)[2]	(22.0)	(2.2)	(5.3)	(8.7)	(.2)
Mining	8,356	215,665	66,363	3,984	18,529	118,433
	(18.4)	(5.7)	(.3)	(1.6)	(10.1)	(.7)
Manufacturing	1,932,041	492,538	52,339	602,513	714,224	70,427
	(25.4)	(6.5)	(.7)	(7.9)	(9.4)	(.9)
Government	566,994	167,535	11,863	61,407	317,084	9,105
	(18.6)	(5.5)	(.4)	(2.0)	(10.4)	(.3)
Services	1,081,367	307,170	34,137	127,690	598,091	14,279
	(21.8)	(6.2)	(.7)	(2.6)	(12.0)	(.3)
Nonspecialized	1,346,137	514,219	47,616	256,723	504,060	23,519
	(27.1)	(10.4)	(1.0)	(5.2)	(10.2)	(.5)

[1] County components may not add to total because of nonclassified counties.

[2] Numbers in parenthesis are percent of total nonmetro employment in each county type.

Source: Calculated by ERS using U.S. Department of Commerce data.

Employment change in nonmetro farm and farm-related industries, 1975-92

Job losses in farm production were outweighed by gains in wholesale and retail trade

Region	Total	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
			Number of jobs			
United States	487,091	-548,142	-43,757	-23,955	1,067,077	26,868
	(8.7)[1]	(-21.4)	(-18.3)	(-2.0)	(77.1)	(25.8)
Appalachia	86,431	-87,527	-2,483	-6,420	177,835	5,326
	(9.4)	(-23.2)	(-11.7)	(-2.0)	(100.8)	(28.8)
Corn Belt	-26,030	-135,285	-23,605	-13,046	135,618	10,288
	(-2.4)	(-25.1)	(-31.7)	(-8.1)	(49.8)	(56.6)
Delta States	874	-78,832	-3,314	17,283	64,253	1,484
	(0.2)	(-37.2)	(-17.9)	(17.3)	(67.3)	(13.5)
Lake States	43,250	-59,084	-446	2,450	98,541	1,789
	(8.4)	(-22.1)	(-1.9)	(3.8)	(68.4)	(17.0)
Mountain	120,349	-8,152	-1,346	-1,702	123,538	4,607
	(36.9)	(-5.4)	(-10.1)	(5.2)	(102.5)	(58.4)
Northeast	71,083	-21,605	-2,637	-44,083	138,779	629
	(16.6)	(-17.5)	(-24.6)	(-34.5)	(88.3)	(51.3)
Northern Plains	-5,093	-57,363	-5,590	14,001	43,137	722
	(-1.1)	(-20.8)	(-17.2)	(26.4)	(42.2)	(51.3)
Pacific	68,411	-7,648	79	3,459	73,983	-1,462
	(29.7)	(-6.5)	(1.0)	(16.4)	(95.9)	(-23.9)
Southeast	49,738	-68,985	-2,962	-3,594	121,727	3,552
	(8.0)	(-32.1)	(-14.8)	(-1.4)	(106.3)	(20.9)
Southern Plains	28,781	-29,364	-1,738	-1,879	61,815	-53
	(6.2)	(-10.8)	(-10.6)	(-3.0)	(56.6)	(-1.1)

[1] Numbers in parentheses are percent change, 1975-92.

Source: Calculated by ERS using U.S. Department of Commerce data.

Prospects for Future Growth

Farm production, once the primary source of employment in many rural areas, is unlikely to generate new nonmetro jobs in the future. Long-term trends in farm consolidation and increases in productivity will continue to reduce labor requirements needed to produce agricultural goods but at a very slow pace. Employment in closely related agricultural input industries will decline along with that in farm production. Processing of agricultural products to add value to the region's commodities may be a source of new jobs that build upon the agricultural base, but as evidenced during 1975-92, such processing industries lost 24,000 jobs. Nevertheless, some location-specific benefits can be obtained through the development of value-added agricultural operations. However, sustained employment growth in processing industries may depend on the ability to penetrate new markets through expanded distribution of existing goods or development of new products. Agricultural wholesale and retail trade industries, with strong relationships to income and population growth, should continue to gain jobs. *[T. Alexander Majchrowicz, 202-219-0508, alexm@econ.ag.gov]*

Two Methods of Measuring Farm-Linked Employment

The Economic Research Service uses two widely respected methods to measure employment related to agriculture. These two methods estimate employment differently—one counts the number of jobs in the economy while the other estimates the number of persons employed. Although these methods provide different employment totals, they both point to the continued importance of farm-related jobs in an era when farm employment itself has been in a long-term decline. In this article, farm-related jobs are measured using information contained in County Business Patterns (CBP) files and supplemented with data from the Bureau of Economic Analysis to account for the self-employed and industries not covered in the CBP. This approach counts the number of full- and part-time jobs in businesses which generally have at least 50 percent of their workforce employed in providing agricultural products to the economy. The food and fiber system approach, which is used in the next two articles, uses employment estimates based on the Bureau of Labor Statistics Current Population Survey of households and counts each worker once. It includes all sectors of the economy and uses an economic model to estimate each sector's employment contribution to the system. Employment figures using the food and fiber system approach are somewhat lower than those derived by the farm-related employment approach, in which one worker may hold multiple jobs.

Each method has advantages which are apparent in the articles in this section. The farm-related employment method, used in the first article, provides detailed industry data for individual counties. As part of this analysis, nonmetro counties were grouped according to their primary economic activity. The following two articles use the food and fiber system approach, which is especially helpful in understanding the national importance of farm-linked jobs and jobs related to agricultural exports.

The Food and Fiber System Remains an Important Source of Rural Employment Despite Declining Farm Employment

The Food and Fiber System generates significant employment in both metro and nonmetro areas. Nearly every State has an important share of its nonmetro jobs in the system.

The farm portion of the American economy produces grains, livestock and poultry, fruits, vegetables, tobacco, cotton, greenhouse and nursery goods, and other products. It requires myriad inputs such as machinery and parts, fertilizer, pesticides, petroleum, and electrical power. It provides downstream employment for transportation and processing at various levels. The Food and Fiber System (FFS) defines this farm-related segment of the economy. We have used an input-output model to identify the levels of economic activity in the various sectors required to support the final demands of the FFS.

The FFS accounts for a higher share of employment in nonmetro areas than in metro. Of the estimated 23.6 million workers in nonmetro areas, 4.7 million, or 20 percent, worked in the FFS. Only 18 percent, or 17.6 million out of 99.4 million were similarly employed in metro areas. The FFS employed 17.1 percent of the total labor force in the U.S. economy in 1994.

The significance of the FFS varies by region and by State. Two-thirds of States which have the largest percentage of nonmetro FFS workers are Southern, Midwestern, and Plains States. Because many States do not fit that pattern, however, we decided to examine nonmetro FFS employment by dividing the States into three categories: those States who have the largest share of FFS nonmetro employment; those in the middle third of the FFS nonmetro employment rankings; and the remainder where the FFS makes up the smallest share of nonmetro employment (see map).

States with a High Share of Nonmetro FFS Employment

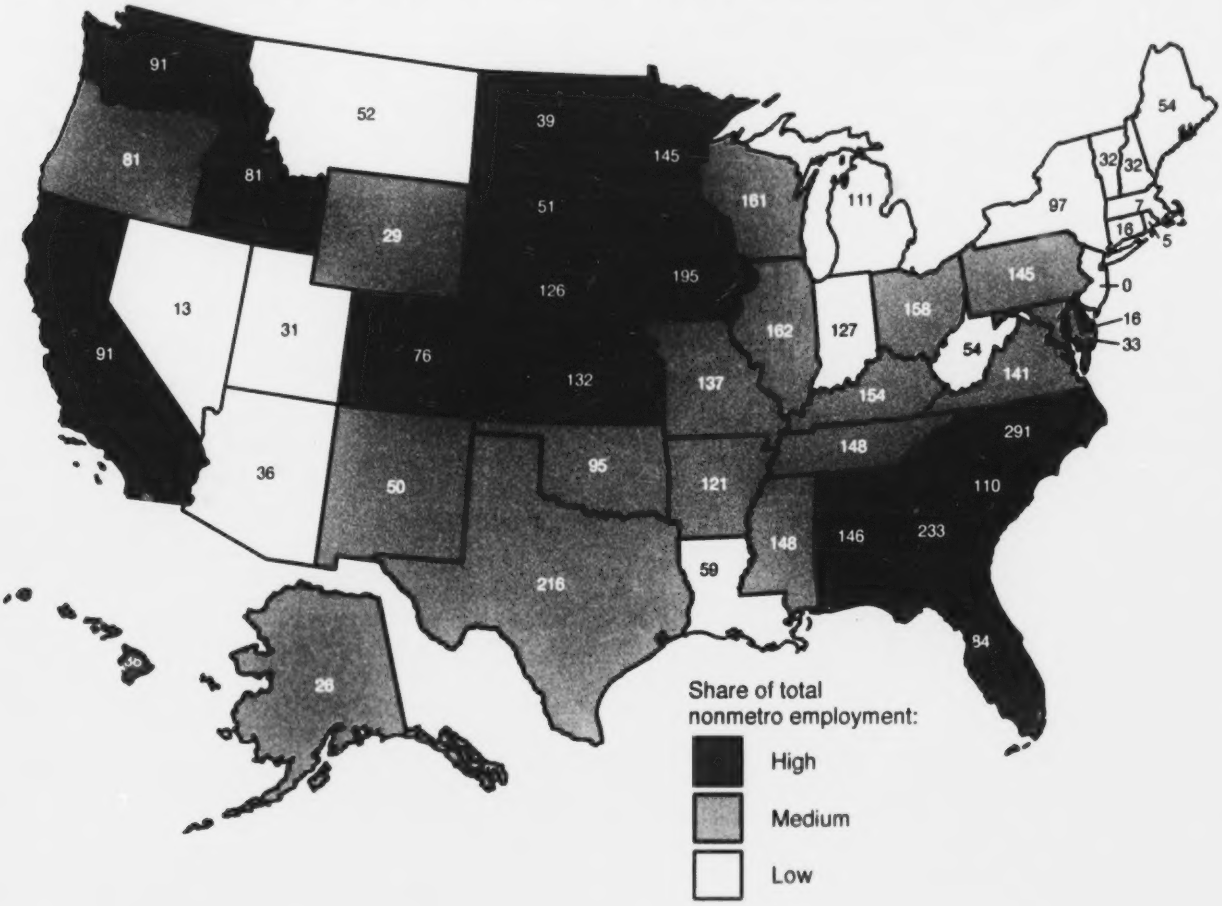
Almost all States in this division show the growth of service industries in recent decades by the relatively large percentage of nonmetro workers in the FFS who are employed in eating and drinking establishments and other wholesale and retail trade jobs. Most of these States, however, have at least one other prominent FFS industry. Overall, these States have 21 - 31 percent of their nonmetro employment in the FFS. Nebraska, with 31 percent, has the largest share of nonmetro FFS employment. North Carolina has the largest number of nonmetro FFS employees with 291,000, followed by Georgia, Texas (which has a moderate share of total nonmetro employment), and Iowa.

Alabama and North and South Carolina have large farm sectors, but the textile industry is the largest nonmetro FFS employer in these States, engaging 30 to 40 percent of the FFS nonmetro workers. California and Florida are largely metro States, but the FFS is strong within their nonmetro areas. In the Dakotas, the farm sector employs as much as 40 percent of all nonmetro FFS workers. Broiler raising and processing both tend to be located in nonmetro areas. Three major broiler producing States — Georgia, Alabama, and Delaware — appear in this group. In similar fashion, beef processors have usually built new plants in nonmetro areas near the supply of finished cattle rather than as earlier in central markets such as Chicago. Moreover, since the cattle industry has moved toward finishing stock in large commercial feedlots located in drier climates, this combination of economic forces has put Nebraska, Kansas, Colorado, and Idaho in this group.

Iowa and Minnesota are both prominent in farming and food processing, which makes FFS employment important in their nonmetro areas. Colorado and Washington have a somewhat similar employment pattern where FFS employment is important in nonmetro areas.

Nonmetro food and fiber employment, 1994

Georgia and North Carolina each have over a quarter million nonmetro food and fiber jobs; they and other States rely on the sector for a high share of their total nonmetro employment


91
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76
132
137
154
54
141
148
291
36
50
95
121
110
146
233
148
59
216
84
30
26
Share of total nonmetro employment:
High
Medium
Low

Notes: Food and fiber employment shown in thousands.
New Jersey and the District of Columbia have no nonmetro areas.
Source: Estimated by ERS.

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Moderate-Share States

In various States in the moderate group, the FFS share of all nonmetro employees ranges from 17 to 21 percent. Of this group, Texas, Wisconsin, and Illinois have the largest numbers of nonmetro employees in the FFS — Texas, with over 216,000 and the others with about 160,000 each. Only in Texas does the farm sector rank as the largest nonmetro FFS employer, the other States having more FFS jobs in the service industries sectors. The growth of the service industries is again shown in this category. In 2 of the 17 states, employment in either eating and drinking establishments or in other wholesale and retail trades ranks first. The farm sector is first in Texas and Oklahoma while the textile sector leads in Virginia, Mississippi, and Tennessee. The farm sector is tied with eating and drinking in Illinois, reflecting the importance of the Corn Belt. In Mississippi, traditionally thought of as a strong agricultural State, the post-World War II revolution in farming has left that sector in fourth place as a nonmetro FFS employer. Oregon, Kentucky, and New Mexico all have relatively large nonmetro farm sectors, but even the mining and forestry sector (included in "All other" in the table) contributes by providing between 1 and 5 percent of all FFS nonmetro employment in these States. Twenty-two percent of all nonmetro FFS jobs in Alaska are in the mining and forestry sector, the second largest catagory behind transportation, trade, and retailing.

Low-Share States

This group has the greatest diversity in the percentage of nonmetro employees engaged in the FFS, ranging from 16 percent in Montana, Utah, Maine, Indiana, Arizona, and Vermont to none in New Jersey and the District of Columbia, which have no nonmetro areas to count.

All of the New England States along with New York and New Jersey form a solid block in this division. Indiana and Louisiana, often seen as agricultural, may seem as anomalies here, but each has become strongly metro in terms of workplace. Most of these States have very small rural areas and those areas tend to be close to large metro areas. Production agriculture is not important in most of these States (the exceptions being New York, Indiana, and Louisiana). Nonmetro FFS employment is largely in the wholesale and retail trades, eating and drinking places, and other services sectors. Taken as a whole, the FFS is still an important provider of jobs and employment even in the few nonmetro areas of the largely urbanized Northeastern States that dominate this bottom one-third.

Conclusion

All things, particularly in a developed economy, are interrelated. The estimation procedure for the Food and Fiber System recognizes these interrelationships and presents an estimate of the role of agriculture in a rural area's economy. The challenge is achieving this simple expression from a complicated web of interrelationships.

Our estimates show how important the Food and Fiber System continues to be for rural areas as well as for the national economy. While the percentage employed by the food and fiber system has declined somewhat since 1982, the numbers employed in the system have remained stable. Decreasing farm employment has been made up by increases in other sectors. Similarly, the value added by the food and fiber system has kept up with inflation, even though it has slipped as a percentage of the domestic economy. In nonmetro areas, FFS employment remains important in nearly every State, regardless how much the sources of that employment vary from State to State. *[William Edmondson, 202-219-0777, wedmonds@econ.ag.gov; Lowell K. Dyson, 202-219-0786, lkdyson@econ.ag.gov; Chinkook Lee, 202-501-8340, chinlee@econ.ag.gov]*

The Food and Fiber System and the domestic economy, 1985-94

Nonfarm-sector employment increases as farm employment falls

Item	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Millions of jobs										
Employment:										
Total food and fiber	22.5	22.3	22.3	23.0	23.4	23.3	22.8	22.0	22.1	22.4
Percentage										
Share of domestic labor force	19.1	18.9	18.6	18.9	18.9	18.7	18.2	17.3	17.3	17.1
Millions of jobs										
Farm sector	2.0	1.9	1.9	2.2	2.0	1.9	1.9	1.6	1.7	1.7
Nonfarm sectors	20.1	20.4	20.4	20.9	21.3	21.4	20.9	20.4	20.4	20.7
Food processing	1.7	1.7	1.6	1.6	1.6	1.6	1.5	1.5	1.4	1.4
Manufacturing	2.9	2.9	2.7	2.8	2.9	2.8	2.8	2.7	2.6	2.6
Transportation, trade and retailing	6.6	6.7	6.7	6.8	7.0	7.0	6.8	6.7	6.7	6.8
Eating	6.0	6.1	6.4	6.6	6.7	6.8	6.6	6.5	6.6	6.7
All other	2.9	3.0	3.0	3.1	3.2	3.2	3.1	3.1	3.0	3.0
Total domestic economy	115.5	117.8	119.9	121.7	123.9	124.8	125.3	127.0	128.0	131.1
Billion dollars										
Value added by activity:										
Total food and fiber	654.7	679.4	708.7	759.0	800.7	839.3	850.4	877.7	893.9	939.2
Percentage										
Share of domestic economy	16.2	15.9	15.6	15.5	15.2	15.1	14.9	14.6	14.1	13.9
Billion dollars										
Farm sector	49.0	48.0	52.2	54.4	62.7	65.1	61.1	65.0	59.3	63.7
Nonfarm sectors	605.6	631.3	656.5	704.6	738.0	774.3	789.3	812.7	834.6	875.5
Food processing	87.8	93.3	91.7	98.1	102.2	106.1	108.0	108.5	110.3	114.7
Manufacturing	117.1	121.5	119.9	125.3	133.5	134.5	135.8	139.3	138.9	145.5
Transportation, trade and retailing	200.7	204.7	214.3	228.7	237.1	248.0	251.0	256.5	262.0	275.1
Eating	81.7	83.6	92.2	99.2	101.7	109.0	110.5	112.5	117.0	124.4
All other	118.2	128.3	138.4	153.3	163.5	176.7	183.9	196.0	206.4	215.8
Total domestic economy	4,038.7	4,268.6	4,539.9	4,900.4	5,250.8	5,546.1	5,724.8	6,020.2	6,343.3	6,738.4

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census, and USDA.

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Agricultural Exports and the Rural Economy in the 1990's

Improved international trade conditions in the 1990's have resulted in increased exports. Agricultural exports in 1994 were responsible for about 791,000 jobs in the U.S., including 259,000 in rural areas.

U.S. agricultural exports generate employment, income, and purchasing power in both rural and urban areas. To export agricultural products, farmers purchase fuel, fertilizer, and other necessary inputs. Agricultural exports also spur economic activity down the line in the manufacturing, trade, and transportation sectors.

In the early 1980's, agriculture, the textile industry, forestry, and the extraction of gas, oil, and coal depended heavily on foreign trade and also were important sources of rural employment. During the decade, the strength of the U.S. dollar and the worldwide recession resulted in a sharp reduction in demand for many U.S. products abroad, including many products of these four important rural industries.

Exports Have Rebounded in the 1990's

In the 1990's, however, both the weaker dollar and American support of multilateral trade liberalization, which worked to open up other countries' agricultural markets, resulted in strong exports for U.S. products. Natural resource-based products share this growth. U.S. agricultural exports, for example, which amounted to only $35.3 billion in 1988, increased to $42.4, $42.5, and $45.7 billion in 1992, 1993, and 1994. In 1994, agricultural exports supported an estimated 791,056 civilian jobs, including 485,000 in the nonfarm sector. Furthermore, *Foreign Agricultural Trade of the United States* (*FATUS*, Nov.-Dec. 1995) reports that agricultural exports set a record of $54.2 billion for the fiscal year 1995, which was almost $11 billion greater than the previous year. This striking expansion resulted in part from a 37-percent rise in bulk exports to $24.1 billion. Almost half the gain came from corn, soybeans, and cotton. Corn shipments during fiscal year 1995 reached 58.6 million tons, valued at $6.6 billion, compared with 33.1 million tons, worth $3.8 billion, a year earlier. Soybean and rice exports rose in similar fashion both in tonnage and in value. Moreover, high-value product exports climbed for the 10th year in a row, advancing by 16 percent to a new record of $30.1 billion.

America's rural economy is extremely diverse. Among the 10 farm regions, bulk exports benefit four in particular—the Corn Belt, the Pacific, and the Northern and Southern Plains. Those exporting regions rely on differing mixes of the six leading export commodities: feed grains and products, soybeans and products, wheat and products, live animals and meat, vegetables and preparations, and fruit and preparations. In 1994, the Corn Belt States exported 51 percent of the total value of feed grains and products ($3.025 billion) which the Nation exported. By adding the export sales from four adjacent States the total rose to $4.868 billion (79 percent). The Corn Belt also exported $3.445 billion in soybeans (61 percent). The addition of five adjacent States brought sales to $4.666 billion (83 percent). The four States of the Northern Plains accounted for 41 percent ($1.770 billion) of exported wheat sales. The two Southern Plains States and the Canadian border tier of Minnesota, Montana, Idaho, and Washington increased wheat sales to $3.165 billion or 74 percent of the total. Three Plains States, Nebraska, Texas, and Kansas, sold 41 percent of live animals and meat exported, in addition to their sizeable grain exports. The Pacific States sold 62 percent ($2.169 billion) of exported vegetables and preparations, while California alone sold 49 percent ($1.473 billion) of all fruit and preparations exported. The Pacific States together exported $2.089 billion (70 percent) in fruit and preparations and Florida added another 18 percent ($555 million).

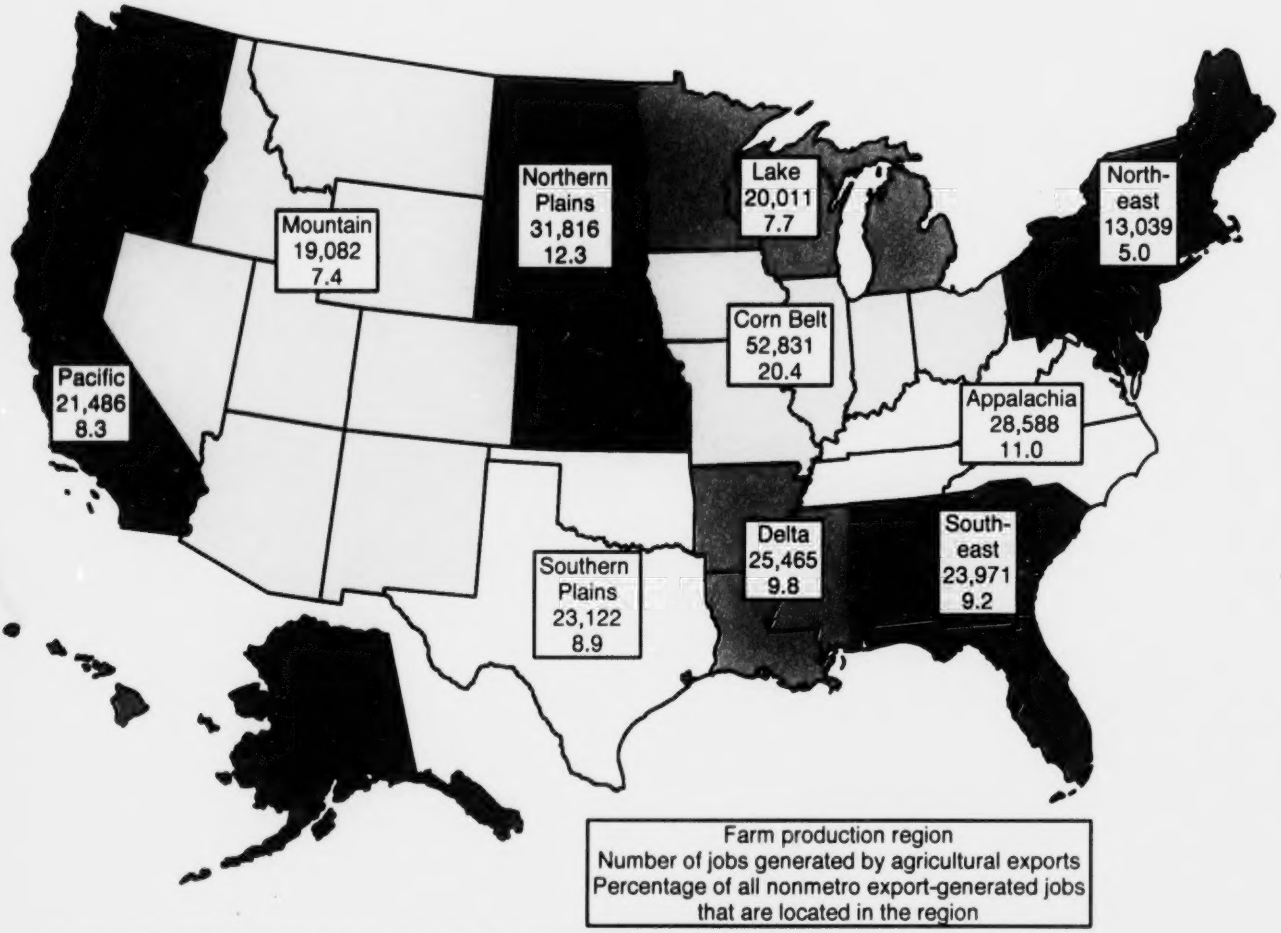
A Third of Farm Export-Generated Jobs Are in Rural Areas

What are the implications of agricultural export growth to the rural economy? Using the 524-sector Input-Output (I/O) model and adjusted County Business Patterns data, we estimated the employment effect of 1994 agricultural exports on rural and urban areas of each State. These exports, amounting to $45.7 billion in 1994, generated 791,056 jobs. An estimated 259,412 of the generated jobs, or 34 percent, were in rural areas. As might be expected, agricultural exports from the Corn Belt accounted for the highest number of jobs, 52,831, which was 1.3 percent of the total rural employment in the region. The Northern Plains, with 31,816 jobs, had the highest share (2.3 percent) among the regions. And within the Northern Plains, Nebraska had the highest State share in the Nation, with 2.9 percent of rural jobs in the State created by agricultural exports.

Nonmetro employment is much more concentrated in some sectors than others. For example, out of 524 sectors analyzed, there are 48 sectors whose nonmetro share of total employment is more than 50 percent. However, most of these industries are natural resource-based, such as mining, forestry, and energy, which show minimal employment effects due to agricultural exports. For example, the pulp mill sector employs 85 percent of its workers in nonmetro areas, but agricultural exports generated only 128 full-time nonmetro jobs in that sector. The coal mining sector employs 82 percent of its workers in nonmetro areas but only 626 nonmetro jobs resulted from agricultural exports in 1994. Because they are labor intensive, some industries, such as wholesale and retail trade, services, and food and feed processing and related manufacturers, have higher levels of employment due to agricultural exports. Agricultural exports generate indirect economic activities in these sectors which result in additional nonmetro employment.

Nonmetro employment generated by agricultural exports, 1994

Corn Belt and Northern Plains gained the most nonmetro jobs from agricultural exports


Mountain
19,082
7.4
Northern Plains
31,816
12.3
Lake
20,011
7.7
North-east
13,039
5.0
Corn Belt
52,831
20.4
Pacific
21,486
8.3
Appalachia
28,588
11.0
Delta
25,465
9.8
South-east
23,971
9.2
Southern Plains
23,122
8.9
Farm production region
Number of jobs generated by agricultural exports
Percentage of all nonmetro export-generated jobs that are located in the region

Note: Alaska and Hawaii were included in the Pacific farm production region for this analysis.
Source: Estimated by ERS.

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Nonmetro employment generated by agricultural exports, 1994

The Corn Belt, Northern Plains, and Appalachian regions lead in export-related jobs

Item	U.S total	Northeast	Lake	Appalachia	Southeast	Delta
			Number			
Total nonmetro employment	23,624,100	2,661,042	2,247,634	3,714,069	2,444,652	1,763,258
			Percent			
Region's share	100	11.2	9.5	15.7	10.3	7.5
			Number			
Employment due to agricultural exports	259,412	13,039	20,011	28,588	23,971	25,465
			Percent			
Share of total nonmetro employment	1.1	.49	.89	.77	1	1.4
Region's share	100	5	8	11	9	10
			Number			
Export-generated employment by sector:						
Farm	166,583	4,763	11,671	15,425	13,771	17,009
			Percent			
Share of nonmetro farm employment due to agricultural exports	64	37	58	54	57	67
			Number			
Dairy farm products	2,207	340	696	150	72	55
Poultry and eggs	7,675	528	427	1,214	1,798	1,893
Meat animals	29,879	328	1,932	1,590	690	611
Miscellaneous livestock	3,416	273	123	935	202	681
Cotton	18,431	0	0	1,591	2,019	8,393
Food grains	12,148	69	658	291	128	1,523
Feed grains	16,402	243	1,698	585	211	268
Grass seeds	231	1	4	2	6	3
Tobacco	5,560	70	44	4,587	712	0
Fruits	11,504	986	849	397	2,106	91
Tree nuts	6,104	50	5	217	786	75
Vegetables	8,915	608	1,114	471	1,378	186
Sugar crops	329	5	79	0	29	37
Miscellaneous crops	772	47	32	38	24	19
Oil-bearing crops	34,909	271	3,374	2,079	2,500	3,048
Forest products	150	6	9	45	19	8
Greenhouse and nursery products	7,952	939	626	1,234	1,092	117
Agricultural services	7,909	674	693	778	949	568
Food processing	26,087	1,811	2,587	3,112	2,796	3,240
Textiles	722	46	26	219	293	26
Tobacco manufacturing	491	0	0	490	1	0
Agricultural chemicals	2,067	49	50	270	617	306
Prepared feeds	3,372	199	290	294	337	218
Other nondurables	7,920	929	763	1,483	948	765
Durables	4,637	474	552	692	436	316
Eating and drinking	1,364	157	142	189	128	77
Wholesale and retail	13,866	1,437	1,326	1,960	1,270	1,055
Transportation	7,978	751	679	1,325	816	675
Other services	12,937	1,577	1,108	1,822	1,279	907
Mining and forestry	3,480	171	126	528	330	305

—Continued

Nonmetro employment generated by agricultural exports, 1994—Continued

The Corn Belt, Northern Plains, and Appalachian regions lead in export-related jobs

Item	Corn Belt	Northern Plains	Southern Plains	Mountain	Pacific
	Number				
Total nonmetro employment	4,176,115	1,360,902	1,766,023	1,979,374	1,511,026
	Percent				
Region's share	17.7	5.8	7.5	8.4	6.4
	Number				
Employment due to agricultural exports	52,831	31,816	23,122	10,082	21,486
	Percent				
Share of total nonmetro employment	1.3	2.3	1.3	1	1.4
Region's share	20	12	9	7	8
	Number				
Export-generated employment by sector:					
Farm	36,034	24,450	16,277	11,804	15,378
	Percent				
Share of nonmetro farm employment due to agricultural exports	68	77	70	62	72
	Number				
Dairy farm products	306	117	133	187	151
Poultry and eggs	784	113	622	108	188
Meat animals	6,363	9,243	4,660	3,879	585
Miscellaneous livestock	161	255	311	337	138
Cotton	758	1	4,339	552	778
Food grains	866	4,751	1,377	1,827	658
Feed grains	6,899	4,113	899	1,177	309
Grass seeds	21	9	6	58	122
Tobacco	148	0	0	0	0
Fruits	323	8	66	361	6,307
Tree nuts	31	91	1,167	829	2,852
Vegetables	395	546	530	1,866	1,821
Sugar crops	2	49	11	77	38
Miscellaneous crops	122	109	6	88	286
Oil bearing crops	17,717	4,893	907	104	18
Forest products	14	2	6	2	40
Greenhouse and nursery products	1,124	141	1,238	353	1,088
Agricultural services	1,138	592	908	678	932
Food processing	4,605	2,999	1,917	1,591	1,430
Textiles	54	15	15	18	10
Tobacco manufacturing	0	0	0	0	0
Agricultural chemicals	388	57	81	196	52
Prepared feeds	948	425	475	136	51
Other nondurables	1,568	202	408	335	520
Durables	1,351	370	203	134	109
Eating and drinking	245	85	84	147	110
Wholesale and retail	2,696	1,162	980	1,135	846
Transportation	1,488	582	436	619	605
Other services	2,064	761	947	1,448	1,025
Mining and forestry	253	117	390	842	419

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census, and USDA/ERS.

The table shows 14 aggregated sectors for which agricultural exports are particularly important. As might be expected, the farm products sector receives most of the employment generated in rural areas from agricultural exports. The 17 subsectors in the farm products sector have 64 percent of the nonmetro jobs generated by agricultural exports in 1994. More than 70 percent of all employment in four of those sectors (food grains, meat animals, oil bearing crops, and feed grains) is in nonmetro areas.

The remaining 13 groups in the table also had substantial numbers of rural jobs generated by agricultural exports. Food processing obtained 26,087 jobs, followed by 13,866 jobs obtained by wholesale and retail trade and 12,937 jobs obtained by the other service sectors.

In terms of a regional breakdown, the Corn Belt had 52,831 jobs in nonmetro areas as the result of agricultural exports in 1994, 20.3 percent of national nonmetro jobs generated by agricultural exports. Farm workers accounted for 36,034 of the Corn Belt jobs and, of these, 17,717 produced oil crops. In fiscal year 1994, the U.S. exported 24.1 million metric tons ($6.9 billion) of oilseed and products. The Nation also exported 40.5 million metric tons ($4.7 billion) of feed grains and products, and growing numbers of feedlots in the Corn Belt fattened cattle for export which created further demand for grain.

In the Northeast, not a major producer of export commodities, farm products accounted for only 37 percent (4,763 jobs) of the region's total nonmetro employment generated by agricultural exports—13,039 jobs. Yet, 8,276 nonfarm jobs supported agricultural exports. This region gained supporting employment from agricultural exports originating in other regions.

Freer Trade Promises Further Gains for Rural Economy

Agricultural exports are important for rural America. Domestic markets have reached a stage of maturity. The United States has a comparative advantage in agricultural exports, and that is where potential growth is in the future. Agricultural trade, which has often been constrained by the policies of many countries, has been moving toward multilateral and regional free trade through GATT and NAFTA agreements and the general acceptance of the World Trade Organization. This trade liberalization, which continues to open up more agricultural markets, should result in strong exports for U.S. products, with concomitant gains in employment for rural America. *[Chinkook Lee, 202-501-8340, chinlee@econ.ag.gov; William Edmondson, 202-219- 0777, wedmonds@econ.ag.gov; Lowell K. Dyson, 202-219-0786, lkdyson@econ.ag.gov]*

Rural Mines Increase Productivity, Decrease Employment

Mining is one of the most productive, capital-intensive rural industries and its various sectors are geographically concentrated. Mining employment in recent years has declined sharply from a peak in 1981.

During the 19th century, mining was a pioneering industry that followed explorers and fur traders into the West. Like the frontier society of which it was a part, mining was also a rambunctious industry that experienced extravagant bouts of "boom and bust." Less extreme cycles of expansion and contraction have continued in the 20th century. The accompanying graph shows the industry's roller-coaster trajectory as it responded to the "energy crisis" of the 1970's by doubling nonmetro employment and then to the oil and metals glut of the 1980's by shrinking that work force back to the 1969 level. Since the 1980's, nearly every State has become less dependent on the energy industries. The Federal Reserve Bank of Dallas predicts that this trend will continue throughout the 1990's but at a slower rate.

The mining industry is generally divided into four main groups—(1) coal; (2) metals; (3) nonfuel nonmetallic minerals; and (4) oil and gas. Wages in all four groups are above the national average. Thus, unless replaced by other types of well-paid jobs, a drop in mining employment results in an overall decline of high-wage jobs in rural America.

Coal—the Most Rural of the Mining Industries

The U.S. coal industry is concentrated in three main geographical regions—Appalachia, the West (including Texas), and the central and lower Midwest. Five States—Wyoming, Kentucky, West Virginia, Pennsylvania, and Texas—account for 64 percent of total national production. With 81 percent of its workers living in nonmetro counties (1992 data), coal is also the most rural-oriented of the major mining industries.

Electric utilities are the primary consumers of coal. Their consumption grew from a 17 percent share of production in 1949 to an 88 percent share in 1994. On the other hand, consumption by all other economic sectors in 1994 was lower than it had been in 1949. The largest declines took place in the transportation sector, where railroads switched to petroleum, and in the residential and commercial sector. In 1994, only 1 percent of U.S. coal was consumed in these sectors.

In 1994, the average prices of bituminous, lignite, and anthracite coal were less than half of what they had been in 1975. The decline in coal prices resulted from gains in productivity, the expanded use of longwall mining in underground mines, and the increased use of cheaper western coal. Overall production, however, is now more than 50 percent greater than it was in 1975. Since World War II, coal has been the major U.S. energy export. Coal exports peaked at 113 million short tons in 1981 and from 1982 to 1994 fluctuated between 71 million and 106 million short tons. In 1994, Japan (10 million short tons), Canada (9.2 million short tons), and Italy (7.5 million short tons) accounted for 38 percent of U.S. coal exports of 71.4 million short tons.

Coal Production Shifting West

U.S. coal production, which had averaged nearly 1 billion tons per year during 1989-92, dropped to 945 million tons in 1993. A United Mine Workers strike and a decline in exports account for most of the decrease in 1993. Coal production in the West in 1993 rose 7 percent above the 1992 level to 369 million short tons, with Wyoming accounting for 86 percent of that increase. Eighty-six percent of Wyoming's production was concentrated in Campbell County, which accounted for nearly 20 percent of the U.S. total. The increase in Wyoming coal production was the result of greater demand for low-sulfur coal from the Powder River Basin. Much of the additional coal output from Wyoming was shipped to electric utilities in Texas and the Midwest, particularly in Illinois, displacing indigenous high-sulfur coal. Because of these changes in coal production in 1993, the western region's share of the U.S. coal output rose from 35 percent in 1992 to 39 percent in 1993. Appalachia's production share dropped to 43 percent from 46 percent in 1992

1992 while the Midwest's share fell from 20 to 18 percent. This continues a trend begun in the early 1980's, when Appalachia claimed half of the Nation's coal production. One result of the westward shift in production has been a greater utilization of lands leased from the Federal Government and Indian tribes. In 1993, over 30 percent of coal output as measured in sales volume came from Federal and Indian lands. Within the next few years, the West will begin to dominate national production since two-thirds of the recoverable coal reserves are located west of the Mississippi River and 93 percent of these reserves are at surface mines, which have an average recovery rate of 91 percent compared with 56 percent for underground mines. For instance, Wyoming has 69.5 billion short tons of proven coal reserves. About 16.5 billion short tons is "compliance coal," meeting the Clean Air Act mandate of 1.2 pounds of sulfur dioxide per million British thermal units. At current production rates, Wyoming miners can produce "compliance coal" from surface operations for another 75 years.

Mining employment and wages

Mining employment and wages have fallen but wages remain above national average

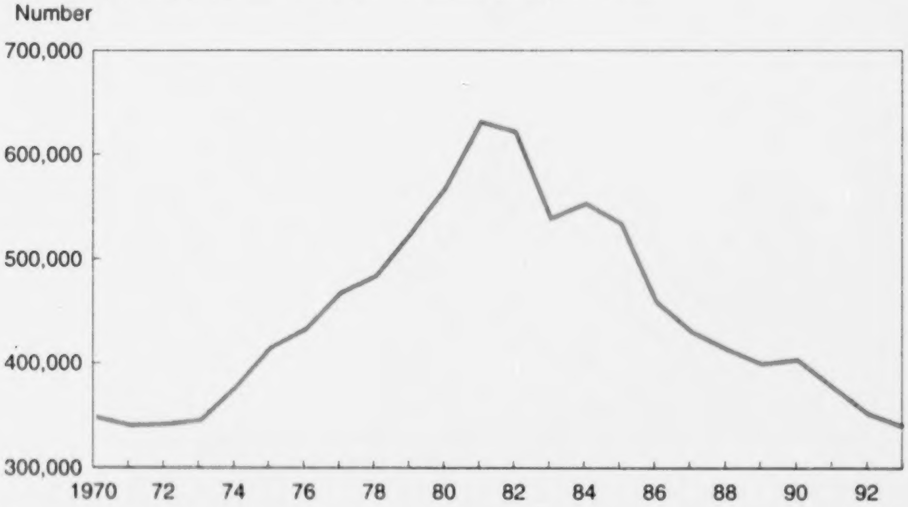
Item	U.S. employment 1992	U.S. employment 1995	1995 average earnings
	Thousands		Dollars
Metal mining	52.7	50.7	$16.67
Coal mining	126.3	107.1	$18.88
Oil and gas	352.3	316.7	$14.48
Nonmetallic minerals	101.3	103.8	$13.32
Total mining	632.6	578.3	$15.28[1]
Total private employment	89,958.8	96,963.6	$11.40

[1] Weighted average

Source: Bureau of Labor Statistics

Nonmetro mining employment

Mining employment peaked in 1981, and has fallen steadily since then



Source: Bureau of Economic Analysis.

Amendments to the Clean Air Act (CAA) requiring lower sulfur dioxide emission limits by 1995 and 2000 have resulted in research and development to meet these new requirements. Such research will benefit mines in Appalachia whose coal generally has a higher sulfur content than those in the West. Coal-burning utilities are being evaluated for compliance with the CAA, and those not meeting standards must switch to lower sulfur coal or "scrub" coal with a gas desulfurization system. The use of scrubbing systems would allow for continued use of more Appalachian coal and increase demand for lime and limestone.

An Older, Smaller, More Productive Workforce

The number of U.S. coal mines dropped 10 percent from 2,748 to 2,475 between 1992 and 1993. This is slightly less than half the number of coal mines that existed in 1984. Virtually all of the decline from 1992 to 1993 resulted from the loss of mines in Appalachia. The closing of mines is in part responsible for a pronounced "greying" of the work force. In 1986, the average age of miners was 39 years but by 1992 it had increased significantly to 45 years. Perhaps another reason for the aging of the work force has been that many fewer miners are now needed to produce a relatively constant amount of coal. During 1984-93, productivity at U.S. coal mines increased at an average annual rate of 6.6 percent. During that same period total coal mining employment declined from 177,848 to 101,322.

Despite the westward shift in production and the "greying" of the work force, coal still has considerable socioeconomic importance in Appalachia. For instance, in 1992 an average of 91 short tons of coal was produced for every person in West Virginia, higher than any other State except Wyoming, compared with a national average of 4 tons per person. However, a comparison of size, employment, and the number of mines gives a more accurate picture of the socioeconomic impact of coal in West Virginia. West Virginia is approximately a fourth the geographic size of Wyoming, but it employs 24,000 people in the coal industry or about four times as many as in Wyoming. In 1992, Wyoming had 32 mining operations versus 1,600 in West Virginia. Also, in West Virginia, about 600 other facilities such as preparation plants, stockpiles, loading areas, refuse disposal areas, and haulageways support these mining operations.

Metal and Nonmetal Nonfuel Minerals

Federal mining policy has been a much-debated subject recently. In 1872, Congress passed the Mining Act permitting prospectors to acquire fee simple title to Public Domain land for $2.50 per acre upon demonstrating the existence of profitable deposits of metalliferous ore. That act undoubtedly stimulated the western mining industry, but for over a century secretaries of the Interior and various commissions have criticized it for unnecessarily allowing the alienation of public property. In recent decades, environmentalists have attacked it for its supposed adverse effect on land and water quality. Beginning in the 1970s, chairpersons of various interior and natural resource committees in Congress have attempted to move to a leasing system similar to that governing coal, oil, and gas on public lands but each time were thwarted by the industry's considerable political persuasiveness. In 1995, leaders in the U.S. House of Representatives proposed increasing the sale price of mineralized land to reflect the market value of "surface" resources only. In addition, a small royalty payment would be assessed on the output of new patented claims. Environmentalists and their congressional supporters consider these changes to be insufficient. The Mining Act of 1872 will probably be amended in the near future but the extent of change is still in doubt.

During the early 1980's, western mining industries (especially copper) suffered a severe downturn. They rebounded later in the decade, led by a surge of gold mining in Nevada where improved processing methods allowed the recovery of gold from deposits previously considered unprofitable. Nevertheless, because of foreign competition, environmental controls, the exhaustion of profitable deposits, and the development of more efficient ways to use metals, the long-term trend line for the U.S. metals industry points downward.

The nonfuel minerals industry is concentrated in a few States, although the degree of concentration is less than in other mining industries. Ten States accounted for 54.5 percent of nonfuel mineral production in the United States in 1992. Nonfuel mineral industries are less rural-oriented than coal. Sixty-two percent of the work force of metals industries lived in rural counties, while 44 percent of the work force of other nonfuel minerals industries have rural residences. Much of the stone, gravel, cement, and clays are mined in States with low proportions of rural counties.

The Ten Leading Nonfuel Mineral-Producing States

Arizona (9.89 percent of U.S. nonfuel mineral production)—Arizona remained the 1992 national leader in nonfuel mineral production, a position it first assumed in 1989. Arizona produced 65 percent of the Nation's copper. Its total of 1.15 million metric tons ($2.73 billion) constituted 86 percent of the State's total nonfuel mineral value. Arizona remained an important gold producer and was nationally significant in terms of several byproducts of copper production - lead, molybdenum, rhenium, silver, and sulfuric acid. According to a study prepared by the Western Economic Analysis Center, the Arizona copper industry contributed $6.56 billion, directly and indirectly, to the 1992 State economy, up sharply from $5.65 billion in 1991. In 1992, 1.6 million Arizonans worked in the nonagricultural sector and 12,600 of those were in mineral mining (0.8 percent). This was down from 14,900 in 1991, which reflects a general trend toward greater productivity in the mineral industry.

Nevada (8.09 percent)—Mined gold made up 87 percent of Nevada's total nonfuel mineral production in 1992. Nevada produced 60 percent of all the Nation's gold and accounted for approximately 9 percent of the world's output. Silver, almost all as a byproduct from gold production, accounted for an additional 3 percent of Nevada's nonfuel mineral production and placed it first among silver-producing States. Relatively low prices, uncertainties regarding access to Federal lands, and more restrictive State and Federal regulations resulted in a substantial decline in exploration activity since the peak in 1988. In December 1992, 12,900 workers were employed in the Nevada mining industry, a 0.8-percent decrease from 1991 and an 8-percent decline since the 1990 peak of 15,000.

California (7.33 percent)—The 1992 value of minerals was down 7.5 percent from 1991. California was the sole producer of boron and tungsten and led all States in the production of asbestos, Portland cement, diatomite, calcined gypsum, rare-earth concentrates, and construction sand and gravel. It was second in natural calcium chloride, gold, magnesium compounds, pumice, industrial sand and gravel, and soda ash. Construction sand and gravel, Portland cement, gold, and boron, in order of value, were the four principal mineral commodities. Industrial minerals were about 82 percent of the value of California's nonfuel mineral production. Continuing declines in industrial minerals prices, due in part to a continued weak construction market in the State, caused the drop in value from 1991. In December 1992, the California mining industry employed 7,900 workers, down about 7 percent from the previous year. Of these, 2,200 were metal mining jobs and 5,700 were nonmetallic mineral mining jobs.

Michigan (4.96 percent)—Michigan's 1992 nonfuel mineral production was valued at $1.6 billion, a 6 percent increase over 1991's amount. In order of value, Michigan's leading mineral commodities were iron ore, Portland cement, sand and gravel, and crushed stone. Industrial minerals constituted about 60 percent of the State's nonfuel mineral value. Although statewide unemployment declined from 9.2 percent to 8.8 percent, in the Upper Peninsula where mining is important the rate rose from 10.4 percent to 10.8 percent. About 9,000 persons were employed in mining throughout the State, the same figure as in 1991. In the Upper Peninsula 3,400 worked in the industry, also reflecting little change from the 1991 figure.

Florida (4.50 percent)—In 1992, Florida's nonfuel mineral value was $1.439 billion, an increase over the 1991 figure of $1.396 billion. An increase in sales was reported for the major industrial minerals produced in the State - cement, phosphate rock, construction sand and gravel, and stone. For most of the 20th century, phosphate rock has the been the leading mineral mined in Florida. More than 95 percent of Florida's phosphate rock production is used by

Oil and Gas

During the last 25 years there have been three oil "price shocks" with lasting effects. Employment in the oil and gas industry has risen and fallen with these price changes. U.S. oil production peaked in 1970, and since that year the U.S. has been importing a greater percentage of the oil it consumes. However, the ratio of energy consumption to gross domestic product (GDP) has been falling over time, reducing concern about U.S. dependence on foreign energy suppliers. According to the forecast of the Federal

the fertilizer industry, and the phosphate industry produces approximately 80 percent of U.S. fertilizer needs and 30 percent of worldwide demand. Historically, sales of fertilizer and phosphoric acid have exceeded 50 percent of the State's mineral value. The annual rise or fall in the value of the State's minerals has been controlled by both fertilizer and phosphoric acid demand and sales to the domestic and world's phosphate fertilizer market. The break-up of the Soviet Union temporarily disrupted an important foreign phosphate market.

Minnesota (4.26 percent)—Minnesota's 1992 mineral production was valued at about 1.4 billion, a $75-million increase over the amount reported in 1991. In order of value, Minnesota's three leading mineral commodities were iron ore, construction sand and gravel, and crushed stone, all of which increased in value in 1992. Minnesota continued to lead the Nation in iron ore production. The industry underwent considerable change in 1992. Lower demand for iron ore, foreign competition, and competition from steel mills that produce steel from scrap (minimills) caused companies to lower production, reduce employment, and even temporarily shut down operations at most of the State's seven taconite iron ore operations. Employment in Minnesota's mining industry averaged 7,621 in 1992, a decline of about 3.2 percent from 1991. The monthly average number of workers employed in the metal mining sector was 6,017 in 1992, a drop of 274 from the figure reported in 1990. Industry's moves to lower taconite production costs caused most of the job lost in the State's mining industry.

Utah (4.21 percent)—Utah's mineral value increased from $1.18 billion in 1991 to $1.35 billion in 1992. Production and value of beryllium, copper, gold, magnesium, molybdenum, and silver all increased from 1991 levels. Utah was one of only three mercury-producing States. The State ranked second in copper and magnesium metal; third in gold, iron ore, and molybdenum, and sixth in silver production. Mining employment constituted approximately 1 percent of the State's total work force. Utah's economy performed well in 1992 and mining production increased but the State's mining employment declined slightly from 8,596 in 1991 to 8,487—another example of the national trend towards greater mine productivity and declining employment.

Georgia (4.21 percent)—Georgia experienced a 3.1-percent increase in mineral value, going from $1.31 billion in 1991 to $1.35 billion in 1992. The State's two leading mineral commodities, clays and crushed stone, accounted for more than 90 percent of the total value produced. Georgia continued to be the largest State producer of several types of clays and also in the quantity of granite and barite production. Mining employment declined from 7,700 in 1991 to 7,500 in 1992, a drop of 2.6 percent.

Texas (4.07 percent)—Texas has been the Nation's leading oil and gas producer since the 1920's and has also been an important producer of Portland cement, crushed stone, magnesium metal, and construction sand and gravel. It led the Nation in the production of magnesium metal, common clay, and zeolites and was second in the production of Portland cement, salt, sodium sulfate, and talc. Jobs in the metals and coal subcategory averaged about 9,000 in 1992, down 500 from 1991. This compares to 161,600 oil and gas jobs, down from 175,600 in 1991.

Wyoming (2.97 percent)—Unlike coal production which is concentrated in one county, 19 of Wyoming's 23 counties contributed to the 1992 nonfuel mineral value of $951 million, up 2 percent from 1991. Wyoming continued to be the Nation's leading producer of bentonite clays and soda ash, and the second largest producer of total clays and Grade-A helium. The minerals industry in Wyoming continued to be the single largest contributor to the value of that State's economy, according to the Wyoming Department of Commerce. It accounted for 8.5 percent of total nonagricultural employment in 1992. In that year nonfuel mining employment was 4,000, a drop from 4,400 the previous year.

Reserve Bank of Dallas, oil prices are unlikely to experience sharp sustained changes during the next decade. Gas prices will move parallel to oil prices but will remain below oil prices for equivalent amounts of energy.

Oil and gas are the least rural of the mining industries, with only 36 percent of their work force located in rural counties. Oil and gas operations sometimes occupy only a few acres of land and usually require less land disturbance than coal and metal mining operations. Thus, they can often fit compatibly into metro environments. Secondly, crude oil and natural gas can more easily be transported to urban processing plants than coal or metal ores. Thirdly, a significant amount of production comes from off-shore wells. For instance, in 1994 gross withdrawals of natural gas from wells totaled 24 trillion cubic feet. Texas, Louisiana, and Oklahoma accounted for 61 percent of total U.S. production. Most of the withdrawals came from onshore wells and State offshore wells, but 5.2 trillion cubic feet (22 percent of the total) were Federal offshore withdrawals.

In 1992, Congress passed the Energy Policy Act (EPACT), which affects virtually all sectors of the energy industry with a range of research-and-development provisions, conservation and fuel requirements, tax incentives, Federal mandates, and regulatory changes. The oil and gas sectors are affected both directly and indirectly. Independent oil and gas producers are helped by changes to the alternative minimum tax system, which took effect at the beginning of 1993. These changes may increase the profitability of their operations and could encourage substantial additional investment. Independent producers account for significant percentages of crude oil and natural gas reserves and for about three-fourths of annual well completions.

Producers of natural gas may also be favorably affected by broad changes EPACT made to the 1935 Public Utility Holding Company Act. These amendments establish a new class of independent power producers (IPP's), who will now have access to utility-owned transmission lines. The IPP's will be able to sell their power directly to utilities. IPP's tend to favor gas power plants because of lower initial costs.

The production of U.S. natural gas rose each year from 16.62 trillion cubic feet in 1987 to 18.41 trillion cubic feet in 1993. Future expansion will be due to a number of factors, including stronger economic growth and increasing gas-fired generating capacity. Increase in demand is supported by a growth in interstate pipeline capacity. Increased demand by electric utilities and by the industrial sector account for virtually all of the increase in natural gas demand. Residential and commercial demand is predicted to remain largely unchanged.

During the same period domestic crude oil production declined in every year but one from 8.349 million barrels per day to 6.870 million barrels per day. The continuing decrease in production reflects low levels of domestic exploration and development during the past several years as a result of prices that are substantially lower in real terms than in most years since 1974. Also, opportunities abroad have been better recently. *[Dennis Roth, 202-501- 8321, droth@econ.ag.gov]*

Manufacturing Jobs Continued to Shift to Nonmetro Areas in 1993

Lower labor costs are probably one of the reasons for the stability of nonmetro manufacturing jobs while metro manufacturing jobs decrease. Manufacturing wages in nonmetro plants are 25 percent lower than metro wages, and nonmetro output per worker is 23 percent lower. However, a comparison of technology use in five technology-intensive industries shows little metro-nonmetro difference.

The nonmetro share of manufacturing employment rose steadily from 20 to 23 percent during 1985-93. Metro manufacturing jobs declined in all but 1 year over that period, while nonmetro manufacturing employment grew or remained stable in each year except the 1990-91 recession period. From 1992 to 1993 (the most recent years for which metro-nonmetro data are available), nonmetro areas added 90,000 manufacturing jobs, while metro areas lost 61,000. Nearly all of the nonmetro manufacturing job growth was in three regions: the Southeast, Great Lakes, and Plains. The nonmetro Southwest and Rocky Mountain regions added 7,000 manufacturing jobs each, while the New England, Mideast, and Far West experienced small job losses. Manufacturing is an important source of employment for nonmetro economies, accounting for 16.8 percent of jobs. The Southwest, Rocky Mountain, and Far West nonmetro regions are least dependent on manufacturing, while manufacturing dependence is highest in the Southeast and Great Lakes nonmetro regions.

National employment data for 1995 suggest that the rise in nonmetro share of manufacturing employment may have slowed during 1995, as most rural-oriented industries lost jobs or grew slowly. Employment in textiles and apparel fell 7 percent and 2.5 percent, respectively, and employment fell less than 1 percent in the furniture and paper products industries. Jobs in food processing and lumber and wood products grew by less than 1 percent in 1995. Most manufacturing job growth in 1995 was in fabricated metal products, industrial machinery and equipment, and electronic equipment. These industries are largely urbanized, but still account for about 20 percent of nonmetro manufacturing jobs.

Nonmetro Manufacturers Lag in Wages and Productivity

Manufacturing firms are often attracted to nonmetro locations by proximity to raw materials, a more hospitable regulatory environment, and cost advantages. As a result, nonmetro manufacturing has been concentrated in mature low-wage, labor-intensive manufacturing industries with standardized production processes. The labor cost advantage of nonmetro areas is evident in a comparison of nonmetro and metro manufacturing salary and wages per worker from the 1992 Census of Manufactures, which shows that nonmetro wages averaged only 75 percent of metro wages. Three of 20 major industries had nonmetro-metro wage ratios of less than 70 percent, four had ratios of 70-79 percent, and six had ratios of 80-89 percent. Only the paper and allied products industry paid higher average wages in nonmetro plants than in metro plants, and the ratio of nonmetro to metro wages was 90 percent or more in lumber and wood products (97 percent), textile mill products (95 percent), rubber and miscellaneous plastic products (94 percent), stone, clay, and glass (91 percent), and primary metal industries (90 percent). Wages are lowest in apparel and leather products industries (under $15,000 per worker), and highest in petroleum and coal products ($37,300), paper ($35,500), and chemicals industries ($34,500).

Lower nonmetro average wages can be attributed to several factors, including a nonmetro industry mix more heavily concentrated in low-wage/low-productivity industries, concentration of nonproduction workers such as office workers, (who usually have higher wages) in metro areas, and generally lower labor costs in rural areas. Labor productivity, considered by economists to be a key determinant of wages, is lower in nonmetro manufacturing plants, but this seems to explain only part of the difference in wages. On average, manufacturing value-added per nonmetro worker is only 77 percent of value-added per metro worker, just 2 percentage points higher than the ratio of nonmetro to metro wages. However, when nonmetro and metro plants in the same industry are compared, a brighter picture of nonmetro productivity emerges. Nonmetro value-added per worker exceeds metro values in five major industries—textile mill products, lumber and wood products, paper and allied products, rubber and miscellaneous plastics, and miscellaneous manufacturing industries. Seven other industries have nonmetro-metro productivity ratios of 90 to 99 percent. Six industries have nonmetro-metro productivity ratios of 80-89 percent, and only three industries have ratios less than 80 percent.

The ratio of overall nonmetro to metro productivity is lower than individual industry comparisons due to concentration of low-productivity industries in nonmetro counties. For example, the textile, apparel, lumber and wood products, and furniture industries, with relatively low productivity, make up nearly 30 percent of nonmetro manufacturing employment, but only 12 percent of metro manufacturing employment. When average nonmetro value-added per worker is computed using the metro distribution of employment by industry, the nonmetro-metro productivity ratio rises from 77 to 85 percent. Thus, lower overall average nonmetro productivity is due to a combination of the nonmetro industry mix and generally lower productivity of nonmetro plants compared with metro plants in the same industry.

Manufacturing employment in nonmetro and metro counties, 1993

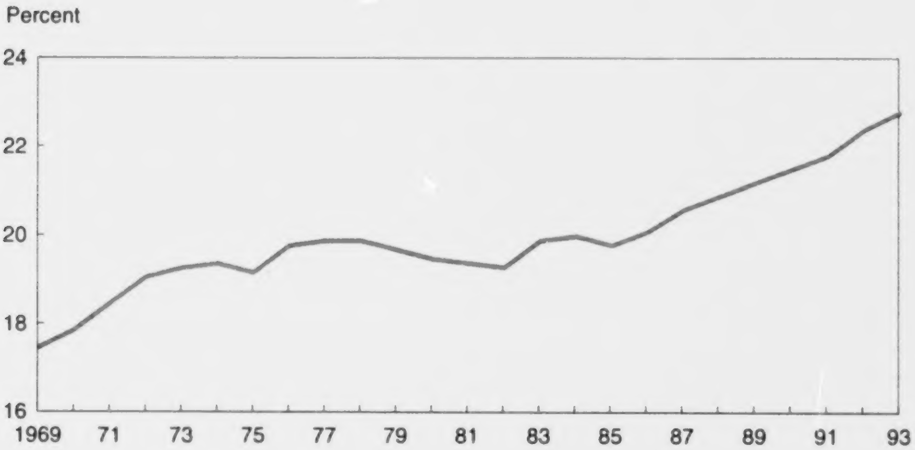
Most nonmetro manufacturing job growth was in the Great Lakes, Plains, and Southeast regions

	Manufacturing employment 1992-93		Growth	
Region	Nonmetro	Metro	Nonmetro	Metro
	Thousands			
All regions	4,274	14,463	90	-61
New England	162	948	-1	-24
Mideast	285	2,499	-3	-53
Great Lakes	861	3,325	26	22
Plains	544	898	21	2
Southeast	1,894	2,884	35	35
Southwest	223	1,219	7	24
Rocky Mountain	121	308	7	7
Far West	184	2,380	-2	-74

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Nonmetro share of manufacturing employment, 1969-93

Manufacturing jobs shifted to nonmetro areas from 1985 to 1993



Source: Calculated by ERS using data from the ureau of Economic Analysis.

Nonmetro Plants Keep Pace in Technology Use

Use of advanced technology boosts manufacturing productivity and competitiveness by reducing labor costs, increasing worker productivity and product quality, and increasing flexibility and responsiveness to market changes. By making workers more productive and increasing the complexity of manufacturing jobs, technology use can also lead to higher wages for manufacturing workers. Some observers are concerned that rural manufacturers may fall behind their urban counterparts in use of advanced technology. ERS anaylzed technology use in six manufacturing industries surveyed by the Census Bureau (see box). In these technology-intensive industries representing a third of nonmetro manufacturing employment we find little difference in technology use between metro and nonmetro manufacturers. In fact, rural firms lead metro firms in adoption of four out of five fabrication/machining and assembly technologies, including flexible manufacturing cells or systems, numerically controlled machines, and robot use, and in the use of several communication and control technologies. Use of computer-aided design and engineering (CAD/CAE) by nonmetro manufacturers in the selected industries increased rapidly from 45 percent in 1988 to 68 percent in 1993, about the same percentage of use reported by metro manufacturers. CAD/CAE was the technology whose use was reported most often by both metro and nonmetro plants, followed by numerically controlled machines at nearly

Comparison of metro and nonmetro labor productivity and wages, 1992

Labor productivity and salaries and wages are lower in nonmetro manufacturing establishments than in their metro counterparts

Standard industrial classification code	Industry	Share of nonmetro manufacturing employment	Value-added per worker: Nonmetro average	Value-added per worker: Ratio of nonmetro to metro	Average annual salary and wages per worker: Nonmetro average	Average annual salary and wages per worker: Ratio of nonmetro to metro
		Percent	$1,000	Percent	$1,000	Percent
20	Food and kindred products	11.8	74.5	64	20.1	76
21	Tobacco products	.1	337.3	44	27.3	65
22	Textile mill products	7.4	49.5	104	19.6	95
23	Apparel and other textile products	9.2	32.1	81	13.5	80
24	Lumber and wood products	9.5	52.6	109	20.9	97
25	Furniture and fixtures	3.7	45.3	91	19.5	87
26	Paper and allied products	4.7	110.1	122	35.5	113
27	Printing and publishing	5.1	55.1	70	19.8	69
28	Chemicals and allied products	3.2	175.8	90	34.5	89
29	Petroleum and coal products	.4	177.9	84	37.3	84
30	Rubber and miscellaneous plastic products	5.8	65.8	103	24.2	94
31	Leather and leather products	1.0	41.6	89	14.8	75
32	Stone, clay, and glass products	3.2	73.0	99	26.1	91
33	Primary metal industries	3.4	72.7	91	30.8	90
34	Fabricated metal products	6.5	60.9	99	25.2	86
35	Industrial machinery and equipment	8.9	66.3	85	27.2	79
36	Electronic and other elect. equipment	6.5	71.0	82	23.7	73
37	Transportation equipment	5.9	82.3	82	27.2	69
38	Instruments and related products	1.9	89.9	90	26.6	72
39	Miscellaneous manufacturing	1.7	61.2	102	20.3	86
NA	All manufacturing	100.0	68.1	77	23.3	75
NA	Average using metro employment shares as weights[1]	100.0	75.4	85	24.7	80

[1] This computation shows what average nonmetro value-added and wages would be if nonmetro areas had the same mix of employment by industry as that of metro areas.

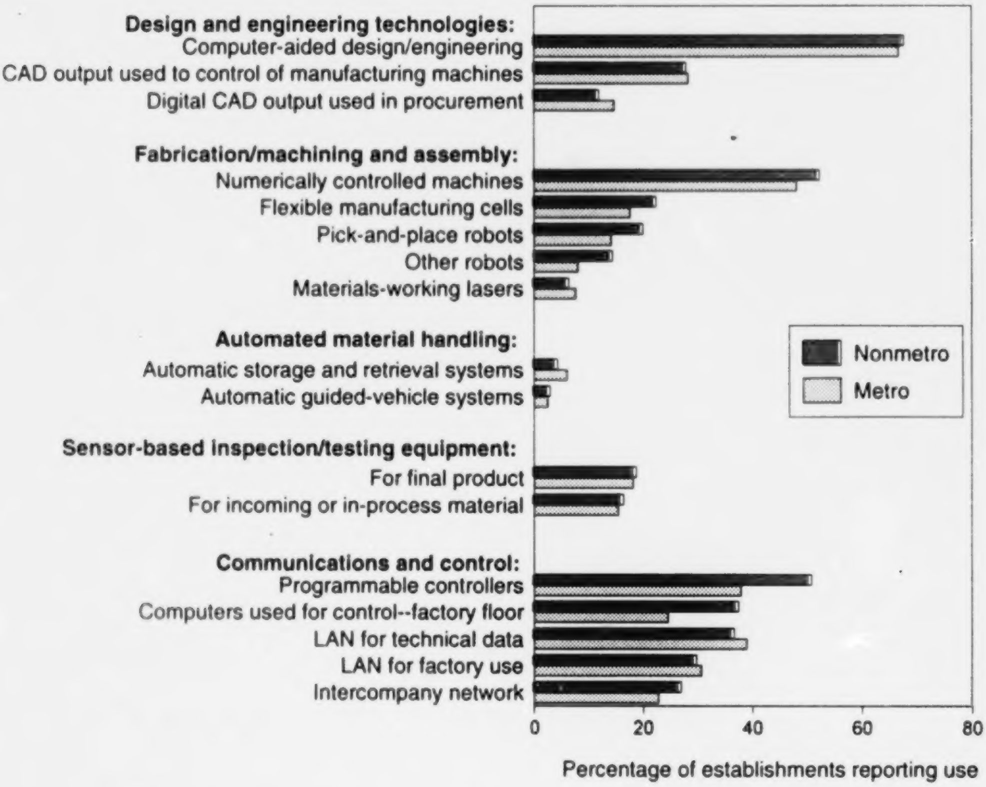
Source: ERS analysis of special tabulations by the Census Bureau from the 1992 Annual Survey of Manufacturing.

60 percent. Nonmetro plants in the selected industries were slightly behind metro plants in use of automated storage and retrieval systems in both 1988 and 1993, but were even with metro firms in use of automated guided vehicle systems and automated sensor-based inspection and testing equipment.

Nonmetro plants report plans for adoption and use of technology that will keep them abreast of metro plants in the selected industries in coming years. A larger percentage of rural than urban plants reported plans to add CAD/CAE, materials-working lasers, robots, guided vehicle systems, and intercompany computer network technologies in the following 5 years. The technology most often included in plans for adoption was intercompany computer networks, which nearly 13 percent of nonmetro manufacturers said they planned to acquire within 5 years. The second most popular new technology was the use of CAD output to control manufacturing machines, which nearly 11 percent of nonmetro plants planned to implement.

Technology use by metro and nonmetro manufacturing establishments, selected industries, 1993

Nonmetro manufacturers' use of technology equals or exceeds use by metro plants



Note: Data are a sample of establishments from five manufacturing industries (see accompanying box).
Source: ERS analysis of *Survey of Manufacturing Technology* data provided by U.S. Bureau of the Census.

Cost Is the Biggest Barrier to Adoption

There is some concern that rural manufacturers may be at a disadvantage in finding out about and implementing new technologies, due to their relative isolation and the lower education and/or skill levels of rural workers. However, the 1991 Census Bureau survey of the selected industries suggests that these factors play a minor role in slowing adoption by nonmetro plants, while costs seem to be the dominant barrier. Cost of equipment was identified most often as a barrier to adoption by both metro and nonmetro plants, followed by cost of software. Cost of equipment was identified by 38.6 percent of nonmetro plants surveryed as a barrier to adoption of fabrication and/or machining technologies. For design/engineering, materials-handling, and inspection/quality control technologies, cost of equipment was reported as a barrier by about 30 percent of nonmetro plants. The share of nonmetro plants identifying software cost as a barrier ranged from 12.5 percent for materials-handling technologies to 19.0 percent for design and engineering. Cost of education and training was identified as a barrier to use of materials-handling technologies by only 7.8 percent plants, and between 10 and 12 percent for other technology categories. The share of nonmetro plants reporting lack of skilled work force as a barrier ranged from 5.6 percent for materials-handling technologies to 12.5 percent for fabrication and/or machining. There was no significant difference between metro and nonmetro plants in the selected industries in the importance of cost of education and training, but lack of skilled work force was reported more frequently as a barrier by nonmetro manufacturers than metro manufacturers. Information-related barriers seem to be more common for nonmetro manufacturers, but were identified as a barrier by fewer than 5 percent of respondents. Lack of information on technology was reported by a significantly greater percentage of rural plants than urban in three of the four technology areas. Lack of technical support from vendors is another minor barrier that is more important for nonmetro firms.

Manufacturers Like Quality Improvement Resulting From Advanced Technology

For three of the four groups of technology types, quality improvement was the most-often-identified benefit of new technologies by both metro and nonmetro plants in the selected industries, followed by labor cost reduction. These two benefits were reversed in importance for materials-handling technologies. The most noticeable metro-nonmetro differences were for fabrication/machining technologies. Nonmetro plants reported quality improvement, labor cost reduction, flexibility increase, setup time reduction, and inventory reduction as important benefits more often than metro plants.

The results of these surveys are of limited value, because they cover only a fraction of nonmetro manufacturers, but they do seem to argue strongly against nonmetro technology adoption barriers as an explanation for lower nonmetro productivity in the selected industries. Technology usage does not appear to explain the differential in nonmetro vs. metro productivity for the industries covered by this survey. Nonmetro value-added per worker was 82 percent of metro value-added per worker for transportation equipment and electronic and other electric equipment, 85 percent for industrial machinery, and 90 percent for instruments and related products, while nonmetro and metro worker productivity were equal in the fabricated metal products industry.

Communications Technologies Reduce Isolation of Rural Manufacturing Plants

Rural manufacturing is composed largely of mature industries with standardized, labor-intensive production processes, while newer, innovative industries are concentrated in urban areas where access to information and markets is greater. The nonmetro industry mix could change, however, as new telecommunications and information technologies improve the flow of information to rural areas. This would reduce the isolation of nonmetro locations, allowing them to compete with metro areas for a greater range of manufacturing activities, including more of the newer innovative and complex processes that often provide jobs with higher skill demands and higher pay.

New production practices like "flexible manufacturing" or "just-in-time" processes favor the clustering of related manufacturing operations, often in metro locations, but also may strengthen the competitive position of nonmetro manufacturers relative to foreign locations. In flexible manufacturing processes, proximity to suppliers is often important because of the cost savings accrued from inventory reduction and decreased delivery charges. Being close to major suppliers also can enhance cooperative efforts. However, the changing economics in freight handling and improvements in communication technologies will reduce the costs of communication and shipping of parts and materials to and from nonmetro plants.

Trade liberalization through NAFTA, GATT, or other means erodes the cost advantage enjoyed by nonmetro areas in labor-intensive industries like apparel and shoe manufacturing that have been an important component of rural manufacturing, by exposing them to additional competition from Pacific Rim and Latin American countries with even lower costs. On the other hand, nonmetro U.S. locations are becoming more attractive to manufacturers from high-wage countries. We have already seen Japanese and German firms building new plants in U.S. rural locales to take advantage of lower wage rates and other costs, and to gain access to the North American market. Additionally, markets for products that make intensive use of raw materials in which the United States may have a cost advantage, such as food and forest products, may be expanded by liberalized trade. *[Fred Gale, 202-219-0594, fgale@econ.ag.gov]*

Surveys of Manufacturing Technology Provide Valuable Information on Technology Adoption in Selected Industries

The Survey of Manufacturing Technology (SMT) in 1988 and 1993 covered five major manufacturing groups (SIC codes 34-38): Fabricated Metal Products, Industrial Machinery and Equipment, Electronic and Other Electric Equipment, Transportation Equipment, and Instruments and Related Products. These industries are predominantly urban. In 1992, they accounted for 30 percent of nonmetro and 45 percent of metro manufacturing employment. The survey results are nevertheless helpful in identifying possible nonmetro-metro differences in technology adoption.

The use of 17 advanced technologies, organized into five general areas, was measured with the survey:

- Design and engineering (computer-aided design/engineering (CAD/CAE))
- Fabrication/machining and assembly
- Automated material handling
- Automated sensor-based inspection and/or tesing
- Communication and control

The 1991 SMT asked manufacturing establishments to identify their three most important barriers to adoption of four broad groups of advanced technologies: design/engineering, fabrication/machining, materials handling, and inspection/quality control.

Retail Industry Adds 98,000 Nonmetro Jobs Annually During 1988-93

The diverse, fast-growing retail industry is today characterized by centralization and concentration. The share of sales by chains of 10 or more stores has risen to 46 percent, and an average of about 25 percent of retail sales leak from rural counties to those with larger towns.

Nonmetro employment in retail trade grew steadily at 2-3 percent annually during 1988-93, adding an average of 98,000 jobs per year. For 1994 and 1995, a metro-nonmetro breakdown of employment is not yet available, but national retail employment grew 3 percent in 1994 and 2 percent in 1995, suggesting continued growth in both metro and nonmetro counties. Retail trade is the second-largest source of nonmetro employment, accounting for 4.3 million jobs and 17 percent of nonmetro employment in 1993, second only to the service industry's 21.5 percent share. Nonmetro retail employment grew at a slightly faster rate than metro retail employment every year from 1988 to 1993. Many nonmetro retailers have benefited from U.S. consumers' increasing demands for convenience, ease-of-access, and price competitiveness from retailers, which led to a shift of retail trade away from central city business districts and large suburban regional malls to more accessible exurban areas and strip malls, discount warehouse stores, and outlet centers.

The retail sector includes a diverse mix of retail business types. Eating and drinking places are the most numerous type of retail establishment and the largest employers, with an average of 38 establishments and 453 employees per nonmetro county. Most eating and drinking establishments are small businesses, averaging 12 employees and sales of $327,000 per nonmetro establishment in 1992, compared with the average of $944,000 per establishment for all nonmetro retail establishments. Nationally and undoubtedly in nonmetro areas many employees of eating and drinking establishments are part time. Nationally, they average 25 hours per week, and have low wages, averaging $5.54 per hour in 1995. Food stores, auto dealers, and general merchandise stores generate the most sales. These three sectors together accounted for 56 percent of total nonmetro retail sales in 1992. Food stores generated an average of $1,430 per county resident in 1992, followed by gasoline stations-convenience stores at $1,250 per person, and general merchandise stores at $870 per person. Nationally, automotive dealers and furniture and home furnishings stores had the fastest rates of employment growth from 1992 to 1995, in excess of 15 percent. Other retailers with fast employment growth include building materials and garden supply stores (12.2 percent) and eating and drinking establishments (9.0 percent). Low interest rates apparently spurred purchases of durable goods and materials for home improvement projects, leading to growth for auto dealers, home furnishings stores, and lumber yards, while growth of sales at retail outlets selling nondurables was weak or nonexistent, as apparel and accessory stores lost employment and drug and proprietary and general merchandise store jobs grew only slightly. The continuing trend toward eating out contributed to growth in employment at eating and drinking places. The national growth rate for retail employment of 6.8 percent from 1992 to 1995 was slower than overall growth for private sector employment (8.2 percent) over that period. If the trends of the early 1990's continued over this period, nonmetro retail employment may have been about 1 percentage point higher than the national rate.

Retail Sector Employs Low-Skill Workers, Provides Labor Market Flexibility

Retail jobs are often disparaged for being largely part time, low-wage, "hamburger flipper" jobs, often lacking benefits. Data on hourly wages and weekly hours seem to bear this out. U.S. averages for 1995 show that retail workers averaged about 29 hours per week on the job, considerably less than a 40-hour week. Average hourly retail pay was $7.63, which was $3.75 less than the average for all private workers ($11.38 per hour). Among individual retail industries, new and used car dealers had the highest hourly earnings ($13.03), while eating and drinking places had the lowest ($5.54 per hour). Low wages for retail jobs reflect low skill requirements and relatively low levels of service, or value-added, involved in selling merchandise, food, and drink to consumers. The part-time and low-wage nature of retail jobs reflects the need for flexibility in the retail workforce, which includes many students, retirees, mothers with young children, and multiple job-holders. These workers change jobs frequently, are often marginally attached to the labor force, are frequently not the primary earner in their households, and need flexible hours. Retail jobs often provide an entreé to the labor market for workers with little experience, training, or education, whom other employers might be reluctant to hire. Thus, retail businesses are an important source of jobs in rural areas for unskilled or inexperienced workers, and retail employment has replaced farm work as the initial labor market experience for most rural youth.

Profile of the average nonmetro county's retail sector, 1992

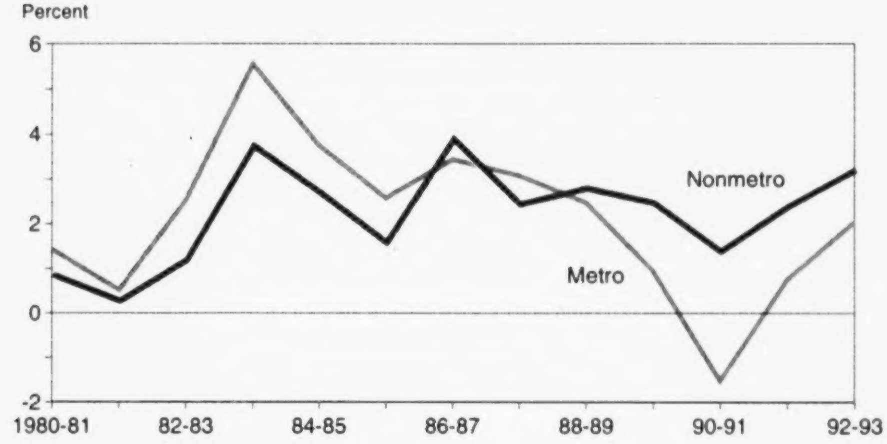
Eating and drinking places are the most numerous type of retail establishment, but food stores and auto dealers get the largest share of retail dollars

Retail industry	SIC code	Establishments	Employees	Sales per county resident[1]
		Number		Dollars
Building materials and garden supply	52	9	63	410
General merchandise	53	5	141	870
Food stores	54	20	271	1,430
Gasoline stations/convenience	554	13	107	1,250
Automotive dealers	55 (ex.554)	12	71	580
Apparel and accessory stores	56	11	63	230
Furniture and home furnishings	57	9	44	200
Eating and drinking places	58	38	453	560
Drug and proprietary stores	591	5	46	260
Miscellaneous retail stores	59 (ex. 591)	26	115	490
All retail	52-59	147	1,372	6,280

[1] Retail sales divided by county population. Column does not add to total due to rounding.
Source: Calculated by ERS using data from the 1992 Census of Retail Trade.

Annual growth in retail employment

Retail employment growth was faster in nonmetro counties during the early 1990's



Source: Calculated by ERS using data from the Bureau of Economic Analysis .

Chains Increase Their Share of Retail Sales

Considerable controversy has been generated by the success of Wal-Mart, the first big chain to cultivate the rural retail market. Other chains have followed Wal-Mart into the long-ignored rural market, leading to concerns about the health of many small-town business districts, which have traditionally relied on small, independently owned retail businesses. Data on sales by chain and nonchain stores are not available for nonmetro areas, but nationally the share of retail sales by chains with 10 or more establishments rose from 42 to 46 percent between 1987 and 1992, according to the Census of Retail Trade. Chains of 10 or more stores account for nearly all general merchandise store sales, 71 percent of apparel store sales, and 64 percent of sales by food stores and drug stores. However, chains are least dominant in auto dealerships (3 percent of sales), eating and drinking places (35 percent), furniture stores (36 percent), and building materials and supplies stores (39 percent). The growth of chains has contributed to the trend toward concentration of retail trade in larger, centrally located towns. Smaller, less accessible communities are generally not attractive locations for chain stores. These communities are often served by small, independent establishments, but this category of retail stores is shrinking. Single-unit retailers, including the "mom-and-pop" stores so long a part of the rural landscape, made up over 90 percent of retail establishments in 1992, but accounted for only 40 percent of retail sales in 1992, down from 43.5 percent in 1987.

Estimated Nonmetro Retail Sales Leakages Average 25 Percent

Concentration of retail trade in large centralized towns and cities makes it a challenge for many small communities and rural counties to maintain a viable retail sector. Community leaders want to ensure that the retail spending of their community's residents stays inside the community, stimulating additional economic activity and preserving a sense of vitality in the community. Analysis of Census of Retail Trade data for all U.S. counties in 1987 and 1992 indicates that, on average, residents of nonmetro counties without a major "trade center" town make about 25 percent of their retail purchases outside their county of residence. The rate of leakage varies considerably, however. About 18 percent of counties without a trade center town lost more than half of their retail sales to other counties, while another 20 percent of non-trade center counties had no sales leakage. Sales leakage is highest in the sparsely populated Plains region extending from North Dakota to Texas (averaging over 35 percent), and lowest in the Northeast (averaging 8 percent). Between 1987 and 1992, average sales leakage declined slightly in most parts of the United States, but increased in the Plains region, where retail trade is becoming more concentrated in larger towns.

Long-Distance Shopping Presents Opportunities and Risks for Rural Communities

Retailing may be in for big changes in coming years, as improved telecommunications change the way Americans shop. As customers increasingly shop at home using a telephone, on-line computer service, or interactive TV, retailers will begin to serve national, rather than local, markets. An early indicator of this trend is the rapid growth in mail order retailing. Between 1987 and 1992, catalog mail order was the fastest growing single retail industry, adding 550 establishments and 27,000 employees, and posting real sales growth of 46 percent (adjusted for inflation with the CPI). These developments present opportunities as well as risks for rural retail trade. Retailers in remote locations with few local customers may be able to expand their potential markets. A number of tele-marketing operations have also chosen to locate in rural areas to take advantage of low labor costs. The down side is that long-distance shopping may further erode the local retail sector in rural areas, since it will be even easier for rural residents to spend their retail dollars in other communities. In any case, rural community and business leaders need to ensure that they have the necessary infrastructure and business to compete in the changing retail marketplace. *[Fred Gale, 202-219-0594; fgale@econ.ag.gov]*

Average earnings, weekly hours, and employment growth, U.S. retail industries

Retail jobs tend to have low pay and part-time hours

Retail Industry	SIC code	Hourly earnings[1]	Weekly hours[1]	Employment growth 1992-95[2]
		Dollars	Hours	Percent
Building materials and garden supply	52	8.97	35.7	12.2
General merchandise	53	7.51	29.2	1.1
Food stores	54	8.08	29.7	4.9
Gasoline stations/convenience	554	6.91	32.5	3.7
Automotive dealers	55 (ex.554)	10.30	35.5	13.9
Apparel and accessory stores	56	7.45	25.8	-3.9
Furniture and home furnishings	57	10.11	32.7	17.2
Eating and drinking places	58	5.54	25.0	9.0
Drug and proprietary stores	591	8.79	28.5	.7
Miscellaneous retail stores	59 (ex. 591)	8.42	29.7	4.5
All retail	52-59	7.41	28.7	6.8
Total private industry	NA	11.38	34.5	8.2

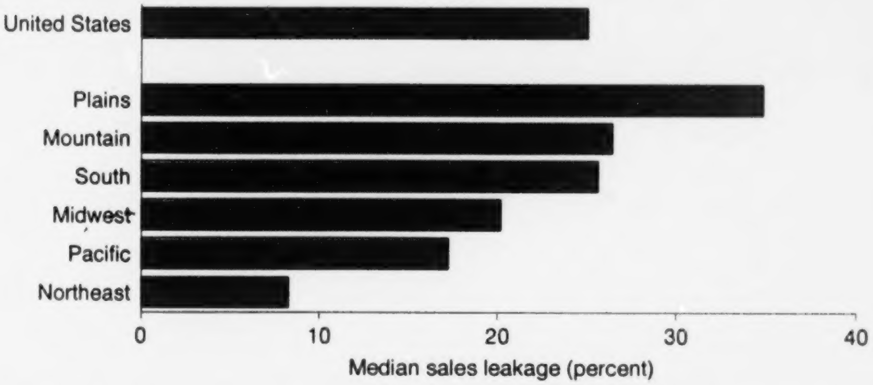
[1] Average for Jan.-Oct. 1995.

[2] Jan.-Oct. 1995 average compared with same period in 1992.

Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Median retail sales leakage rate among nonmetro counties without a trade center town, 1992

Counties in the Great Plains region have the highest rate of sales leakage, while Northeastern counties have the lowest



Note: Regions include: Plains–ND, SD, NE, KS, OK, TX, Mountain–MT, ID, WY, UT, NV, CO, NM, AZ, South–VA, WV, KY, TN, NC, SC, GA, AL, LA, FL, MS, AR, Midwest–OH, IN, IL, IA, MO, MI, WI, MN, Pacific–WA, OR, CA, AK, HI, Northeast–ME, NH, VT, MA, RI, CT, NY, NJ, PA, DE, MD, DC.

Source: Estimated by ERS, based on data from the Bureau of the Census and U.S. Department of Commerce.

Interstate Banking and Rural America

Rural communities currently served by offices of large banks are more likely to participate in interstate banking. Through loopholes in current laws, nine States already have interstate branches. Antitrust regulations should limit reductions in the numbers of banks serving particular rural communities.

National trends toward increased bank consolidation and interstate banking will affect rural communities in the coming years, but probably less than urban communities. Relatively fewer independent rural banks will disappear since most large banks will concentrate their expansion efforts in urban financial markets. Today only about 150 rural bank branches belong to banks headquartered in other States, and most of these branches are in Maryland, South Carolina, and Virginia. Many more rural communities participate in interstate banking as a result of bank holding companies that own banks in two or more States. While bank mergers and failures have steadily reduced the number of legally separate banks over the past decade both nationally and in rural America, the average number of banking firms and offices per rural county grew slightly between 1980 and 1993. However, rural residents generally have few lenders to choose from. Over a quarter of rural counties have offices of just one or two banks, and another half have only three to five banking firms.

Interstate banking and other forms of bank consolidation may bring both gains and losses to rural communities. Fewer rural banks would mean less choice in obtaining financial services, and perhaps higher prices due to lessened local competition. While Federal antitrust guidelines for banking mitigate the likelihood in most rural markets that the number of independent banking organizations will drop, rural people often believe that outside ownership of a bank is as bad as losing the bank outright. Outsiders may not care about local businesses, or they may lack the necessary local knowledge to accurately evaluate loan requests and to identify profitable investments.

On the other hand, large outside banks may provide a wider range of financial services. They have geographically diversified loan portfolios that are less sensitive to local economic downturns. Outside banks may be more inclined to accept loan applications from types of businesses not previously found in that area. Loan size is less likely to be an issue because outside banks generally have large capital stocks to support larger loans. Large banks may be more familiar with government loan programs that can be used by people who do not qualify for conventional credit. And some outside owners maintain local managers because they value their knowledge of local markets.

Bank consolidation is a response to various forces that are buffeting financial markets. Large banks believe they must grow even larger to better compete in what has become a global financial market. Size brings the promise of cost efficiencies, the ability to serve larger customers and to provide a wider range of services, protection from local economic problems through geographic diversification, and less chance of being taken over by another bank. Rural banks will not be in the forefront of this process, but no longer can they or their customers afford to ignore the broader financial markets. Many rural financial markets will at least see indirect effects as the existing outside bank is taken over by an even larger outsider. Employment in banking will also decline as a result of consolidation.

Interstate Banking Will Spread Under 1994 Act

Interstate banking has received substantial media attention over the past year, stemming from the Interstate Banking and Branching Efficiency Act of 1994 and from announcements of mergers between large banks. The legislation extends interstate banking in two steps. As of September 1995, bank holding companies could acquire banks in any State. In June 1997, holding companies will be able to convert their out-of-State bank affiliates to branches of the lead bank provided the affected State does not pass legislation to prevent this.

A loophole in Federal legislation made interstate banking a reality even before the 1994 legislation was passed. A State may permit banks headquartered in that State to be acquired by bank holding companies based in other States as long as they do not become branches of holding company affiliates in different States. That is, an acquired bank might have branches in its State, but those branches could not legally be transferred to affiliates controlled in other States. Most States permitted such acquisitions by the time the 1994 law was signed, some with restrictions which the new act repeals. State rules still hold with respect to limits such as the proportion of total State banking deposits that may be controlled by a single banking organization.

Intrastate holding company acquisitions and branching are equally important. Many rural communities will participate in interstate banking only because they already have local banking offices that are controlled by outside banking firms headquartered elsewhere in the State. Rural areas may not be targeted directly by large banking firms that are expanding in their own State or into other States. But rural offices will be part of the package when out-of-State banks acquire major banking firms within the States that already control rural bank affiliates or own rural branches. In some cases, the large bank may try to spin off rural offices that do not fit its strategic plan, by selling them to other banks or to local investors. Regulators often require this sale if the acquiring bank

Complex Organization Characterizes American Banking System

In addition to commercial banks, the U.S. has a variety of financial institutions, such as savings and loan associations, credit unions, and Federal and State savings banks. Many nondepository institutions also provide financial services, including finance companies, the Farm Credit System, brokerage firms, and insurance companies. This article is limited to commercial banks with Federal insurance.

The American dual banking system is a complex one. A bank may obtain a national or State charter. Both Federal and State regulators and laws play roles in determining permissible behavior by a particular bank. Most banks receive deposit insurance through the Federal Deposit Insurance Corporation (FDIC). National banks typically are authorized to do whatever a State allows its State-chartered banks to do in terms of branching and providing certain financial services. Dual banking is given credit for many financial innovations over the past 20 years, such as interest-paying checking accounts, as State or Federal regulators test new products or extend regulations in new areas.

A bank holding company (HC) owns one or more commercial bank affiliates. These affiliates are legally separate banks; each has its own charter and board of directors, and must file quarterly financial reports to its regulator. HC's are regulated by the Federal Reserve Board (Fed). A multibank holding company (MBHC) owns at least two bank affiliates. Initially, this was a method of surmounting branching restrictions within a State, and more recently permitted HC's to extend their operations to other States. A second advantage to forming a holding company explains why many HC's control a single bank. A variety of financial services may be provided through HC subsidiaries but not directly by a bank.

Chain banks, in which the same investors own two or more banks without forming an HC around them, represent an alternative method of getting around branching restrictions within or across State boundaries. Chains avoided Fed regulation over HC's. But the Fed is now involved anyway whenever ownership of a bank changes. With the trend toward liberalized State branching laws, many chains have reorganized as HC's.

At one time, many States prohibited bank branching entirely, or severely limited the number of branches and their locations. This reflects the traditional American fear of concentration of economic power. Some States placed similar restrictions on MBHC expansion, not allowing MBHC's to circumvent branching constraints. By today, however, most States have much more liberal branching regulations. When an MBHC purchases a bank in another State, prior to 1997 that bank cannot be converted to a branch of the lead bank. But the acquired bank may have branches in its State, and the HC may merge banks if it owns more than one in the same State (depending on State regulations). Hence thousands of branch offices are controlled by out-of-State holding companies, but they are not (yet) interstate branches in the formal sense of being directly owned by a bank in another State.

already has its own offices in the rural market. Otherwise, the parent banking organizations will likely reorganize in 1997 and convert their affiliated banks and branches to interstate branches. Some of these banks are already touting the ease with which customers will be able to deal with branches throughout the region or country.

Currently independent rural community banks will not necessarily remain immune to the new wave of consolidation. Some regional and super-community banks have expansion strategies based on acquiring well-run community banks in growing communities. And many community banks may choose to join larger firms, to provide a wider range of services to their customers or perhaps to reward their shareholders if a prospective partner offers a premium over the current market value of the bank's stock.

Some Cases Exist Now, but Interstate Branching Will Really Take Off in 1997

Interstate branching does not become legal under the 1994 legislation until June 1997, but banking regulations are occasionally stretched to create interstate bank branches. This has happened during the past year or so through a loophole in legislation that allows national banks to move their headquarters up to 30 miles at a time. The loophole involved the recognition that the legislation neglected to address the technical issue of crossing State boundaries. Moving its headquarters into a neighboring State transforms those branches left behind in the original home State into interstate branches. Exceptions made while cleaning up the remains of the S&L disaster represent a second possible source of interstate branches. On the grounds of disposing of failed financial institutions at the lowest cost, regulators were granted legislative authority to permit combinations of financial institutions that otherwise would not have been allowed. States may also pass legislation permitting interstate branching prior to 1997.

At one time, some aggressive banks evidently intended to leapfrog their way across the country in 30-mile jumps to create interstate branching empires. Several banks may continue to use this process in selected markets to get a head start, but the 1994 legislation makes this unnecessary provided that few States take the opportunity to opt out of the interstate branching portion of the 1994 legislation. Texas is the first State to block the interstate branch option. Numerous large Texas banking firms failed in the 1980's and were taken over by out-of-State banks. Whether valid or not, many Texans believe that the new owners have refused to make loans in Texas, and therefore do not want to encourage additional outside bank entry into their State.

The Federal Reserve Board database as of November 15, 1995, contained 2,129 interstate branches, including 150 in rural counties. These branches were controlled by only 35 banking organizations. Two banks owned two-thirds of all interstate branches. The rural interstate offices were primarily in Maryland, South Carolina, and Virginia. The number of interstate branches would be considerably larger if savings and loans and other depository financial institutions were counted.

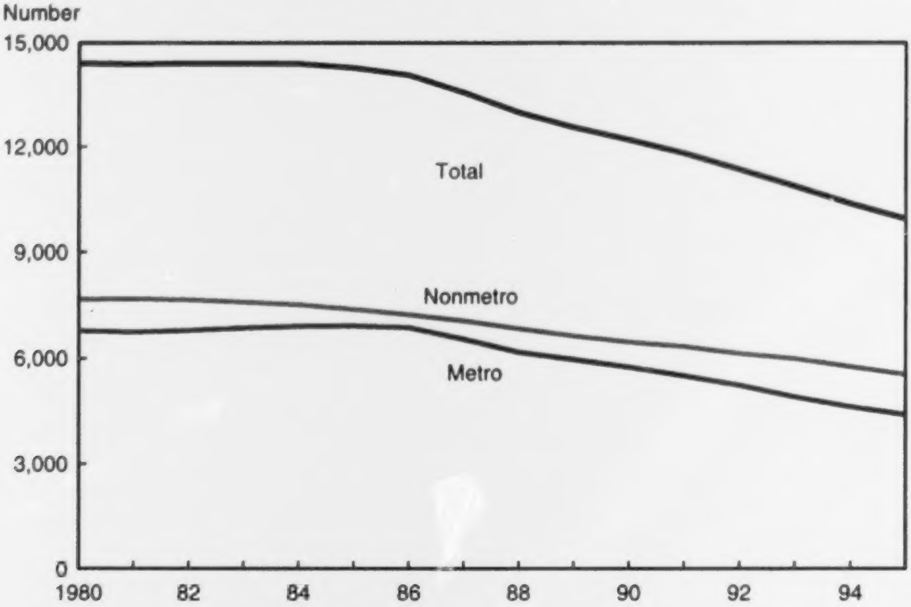
Rural Financial Markets: Past, Present, and Future

The number of U.S. banks has declined since 1980, especially over the past decade. This decline has been more gradual in rural counties and has been partly offset by a rise in bank offices per county. Local economic conditions and bank laws have also been important influences on the numbers of banks in individual States, as can be seen in Texas. Since banks could not branch in Texas until the late 1980's, a strong economy led to many new banks being chartered in the first part of the 1980's. Later, in response to severe problems in the energy and agricultural sectors, Texas banks declined more rapidly in number than in the country overall. This was facilitated when Texas began to permit holding companies to merge their bank affiliates at the local level.

The numbers of different banking firms and bank offices available to residents of the average rural county are well below those available to residents of the average urban county. Nevertheless, the average numbers of banking firms and offices serving rural counties

Number of insured commercial banks by location, 1980-95

The number of banks has been dropping since 1986

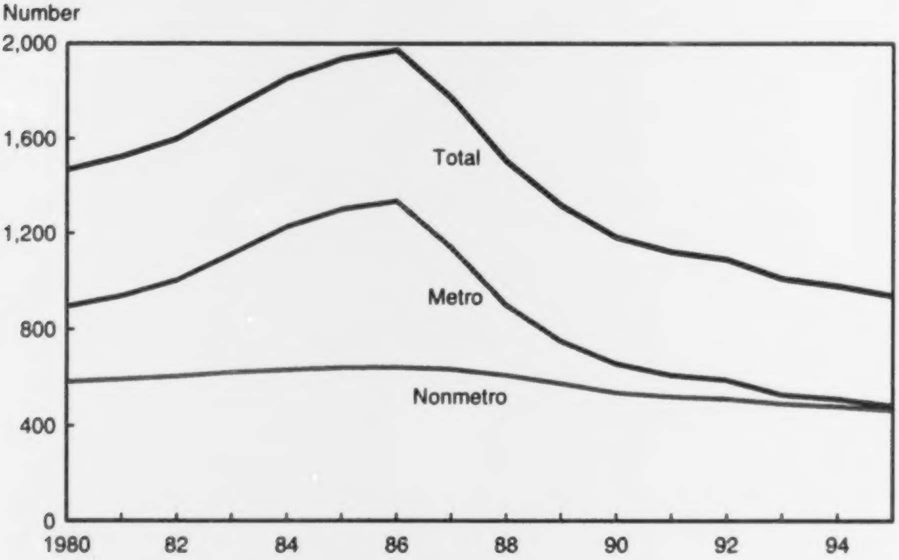


Note: End of year data, except for October 31, 1995.

Source: Calculated by ERS from the Federal Reserve Board's NIC database.

Number of insured Texas commercial banks by location, 1980-95

The number of banks grew until 1986 and then declined rapidly due to failures and changes in Texas bank branching laws



Note: End of year data, except for October 31, 1995.

Source: Calculated by ERS from the Federal Reserve Board's NIC database.

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actually increased slightly between 1980 and 1993. While nationally the number of banks has declined, this has not reduced the number of different banks in rural counties.

The number of banks will continue to drop in the coming years. However, as in the past much of that will be due to holding companies converting bank affiliates to branches as laws permit and as they decide cost savings from branches outweigh the benefits of maintaining a local identity for their affiliated banks. Perhaps as many as a dozen banks will extend their operations to large parts of the country, but that does not mean they will have an extensive network of rural offices. Thousands of community banks will continue to compete in rural areas. *[Daniel Milkove, 202-219-0318; dmilkove@econ.ag.gov]*

Interstate branches of insured commercial banks in selected States by branch location, November 15, 1995

Interstate branching exists, but only in a few nonmetro areas so far

State	Nonmetro	Metro	Total
	Number		
Connecticut	0	76	76
District of Columbia	0	47	47
Illinois	0	20	20
Kansas	0	20	20
Kentucky	3	39	42
Maryland	30	361	391
New Jersey	0	542	542
New York	9	195	204
Pennsylvania	6	263	269
Rhode Island	0	13	13
South Carolina	55	172	227
Tennessee	1	1	2
Virginia	42	204	246
West Virginia	2	2	4
Wisconsin	2	1	3
Other States[1]	0	23	23
Total	150	1979	2129

Note: Both the branch and its head office are in the 50 States or D.C.; banks or branches in Puerto Rico, Guam, etc., are excluded. The table only includes those States with at least 1 nonmetro branch belonging to an out-of-State bank, or with at least 10 metro interstate branches.

[1] These States, with metro interstate branches in parentheses, are Arkansas (3), Colorado (1), Georgia (1), Iowa (6), Missouri (7), Oregon (1), Texas (1), and Washington (3).

Source: Calculated by ERS from the Federal Reserve Board's NIC database.

Metro and nonmetro county banking markets

Nonmetro counties average fewer banks than metro counties

Bank market characteristics	Metro		Nonmetro	
	1980	1993	1980	1993
	Number			
Counties with one or more bank offices	713	835	2,356	2,278
Banking firms per county	10.6	10.7	4.1	4.2
Bank offices per county	45.6	52.7	7.3	8.3
	Percent			
Counties served by:				
1-2 banking firms	5.6	4.2	31.1	27.4
3-5 banking firms	24.0	22.0	45.8	48.3
6-9 banking firms	31.4	33.9	18.9	20.9
10 or more banking firms	39.0	39.9	4.1	3.4

Source: Calculated by ERS from the Federal Deposit Insurance Corporation's Summary of Deposits database for June 30, 1980 and 1993.

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Government Plays Significant Role in Nonmetro Employment

Nearly 17 percent of nonmetro employment comes from Federal, State, and local government jobs. Government employment has grown steadily with population growth, especially in the South and West.

Over 4 million workers were employed by Federal, State, or local government in nonmetro counties in 1993, the latest year for which data are available. These jobs accounted for nearly 17 percent of all nonmetro employment and the total number has increased by more than 570,000 jobs since 1980. Government employment grew on average by less than 1 percent per year in nonmetro areas. Government includes executive, legislative, judicial, administrative, and regulatory activities of Federal, State, and local governments, including State and local schools, colleges, hospitals, and prisons, military bases, and headquarters of State and Federal parks and forests.

Government Plays a Large Role in Nonmetro Counties

Nearly 4.3 million, almost 20 percent of all government workers in 1993, were located in nonmetro areas. Most nonmetro government jobs, 3.4 million, are in State and local government. Over 446,000 are Federal military personnel (nearly 18 percent of all the military) and almost 400,000 are Federal civilian employees (less than 13 percent of Federal civilian jobs).

Government employment accounts for 17 percent of nonmetro employment. Earnings from government jobs amounted to $101 billion, more than 19 percent of nonmetro income in 1993. Earnings from State and local government employment contributed the largest share of government income, $80.2 billion. Federal civilian earnings added $13.8 billion, and military earnings accounted for $7 billion.

Average earnings per government job in nonmetro areas was $23,700 in 1993, which exceeds the average earnings for all industries in nonmetro areas by nearly $3,000. Federal civilian jobs were the highest paid government jobs. The $16,000 average earnings per military job was below the nonmetro average, perhaps due to the in-kind benefits and allowances military personnel receive as part of their compensation.

The Economic Research Service has classified 244 nonmetro counties as government-dependent counties. In these counties, Federal, State, and local government activities are the primary economic specialization. Approximately 75 percent of government earnings in government-dependent counties were from State and local jobs. Although only a quarter of government earnings in these counties came from Federal jobs, it is a higher share of earnings than in all nonmetro counties, where almost 14 percent of government earnings come from Federal jobs.

Population increased by more than 6 percent in government-dependent counties during the 1980's, and 11 percent in western government counties. This population growth was large compared with 0.6-percent growth in all nonmetro counties. Government counties also enjoyed strong economic growth during the 1980's. While nonmetro counties overall averaged only a 3.4-percent increase in aggregate earnings, government counties averaged 11 percent. This earnings growth stemmed from government and trade/services gains of more than 610,000 jobs.

However, population and earnings growth in government-dependent counties did not translate into a higher level of economic well-being. Per capita income and per capita earnings averaged more than $1,000 lower than comparable estimates for all nonmetro counties. The disparity can be partly explained by the disproportionate number of low-income college students and military personnel in these counties.

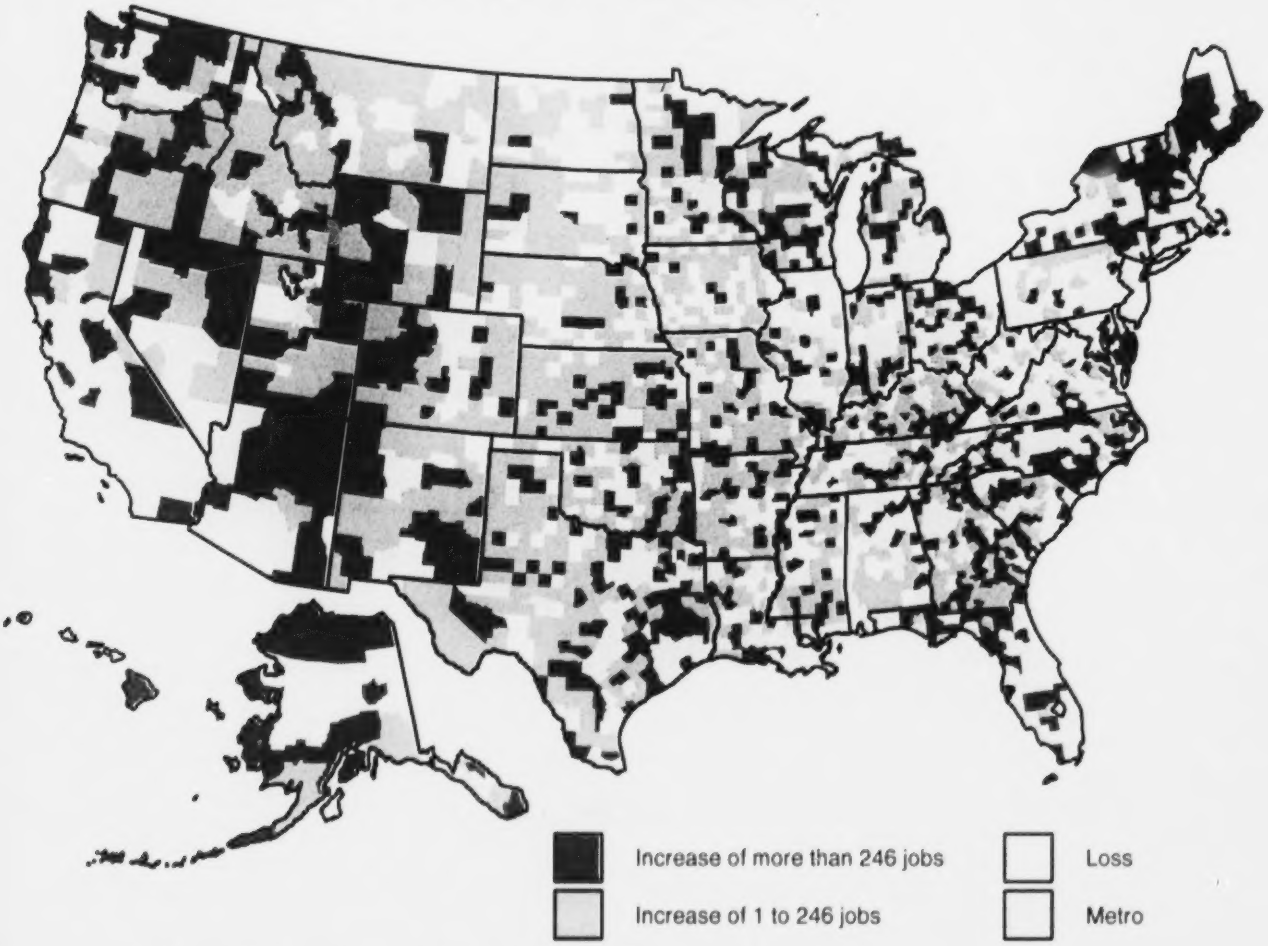
Government Employment Is Source of Nonmetro Job Growth

Government employment increased by 2.7 million jobs from 1980 to 1993 for the Nation as a whole. Although only 21 percent of this employment increase was located in nonmetro areas, the increase in government jobs accounted for 16 percent of nonmetro employment growth during 1980-93 period. Government employment dropped slightly during the 1980-81 recession but has been steadily rising since then (see chart).

Government was the third largest contributor to nonmetro employment gains, adding 572,000 of the 3.6 million nonmetro jobs gained between 1980 and 1993. State and local government, adding more than 580,000 jobs, was the engine of nonmetro government growth. Military employment increased by over 9,000 jobs, but civilian Federal employment in nonmetro counties fell by nearly 20,000 jobs.

Government employment change, 1980-93

The average nonmetro county gained 246 government jobs during 1980-93



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Some of the government employment growth can be attributed to the expanding role of rural and small-town areas in housing the prison population. More new prisons opened in nonmetro than metro areas during 1980-91, and nonmetro prisons housed nearly as many inmates as metro prisons by 1994. Nonmetro prisons employed 116,000 people in 1991, of whom 56,000 worked in facilities opened since 1980. [For more details, see C. L. Beale, "Prisons, Population, and Jobs in Nonmetro America," *Rural Development Perspectives*, Volume 8, Issue 3, pp. 16-19.]

Military base closings have adversely affected government employment in some nonmetro areas. Since 1988, 73 major bases have been slated for closure, 17 of which are located in nonmetro areas. Fort Knox was responsible for most of the 8,480 Federal jobs lost in Hardin County, Kentucky. However, military personnel shifts caused Fort Drum of Jefferson County, New York, to gain more than 11,000 jobs. The overall increase of 9,000 military jobs during 1980-93 shows that nonmetro areas are holding their own, but individual counties where bases closed must find alternative employment opportunities. [For more details, see P. Stenberg, T. Rowley, and A. Isserman, "Economic Development After Military Bases Close," *Rural Development Perspectives*, Volume 9, Issue 3, pp. 16- 23.]

Most New Nonmetro Government Jobs Are in the South

Nonmetro counties in the South gained the most government jobs, nearly 250,000 jobs since 1980. Nonmetro counties in the West gained 142,000 government jobs, an increase of 23.3 percent, making it the region with the largest government job growth rate. Nonmetro counties in the Midwest ranked third with a gain of nearly 132,000 jobs (11.3 percent growth), and the Northeast gained fewer than 50,000 government jobs (13.5 percent growth).

All regions had a net gain of State and local government employment, ranging from a low of 43,000 jobs in the Northeast to a high of 270,000 jobs in the South. Nonmetro Federal jobs gained only in the Northeast and West. Government employment growth coincides with population growth. The West and South had the largest population gains and the largest gains in government jobs.

Average county government employment growth was 246 jobs. Only 416 of the 2,288 nonmetro counties lost government jobs between 1980 and 1993, and 729 counties gained more government jobs than the nonmetro county average.

Conclusion

Government contributed greatly to the employment and income growth of nonmetro areas during the 1980's, with State and local government jobs accounting for most of the growth. Population increases and the ensuing increased demand for local public service explain the need for increasing employment at the local level.

Many nonmetro areas have been willing to accept new Federal and State prisons, an instrument of growth in government employment and income. Their successes may prompt other nonmetro areas to pursue prisons or other State facilities, such as hospitals, as a source of employment and income for their citizens.

Federal employment, including those jobs in rural field offices across the Nation, is becoming a target of Federal downsizing. The U.S. Department of Agriculture's 1994 reorganization is just one example of this policy. Over the next 5 years, USDA plans to close some 1,200 of its 3,700 field offices and reduce its workforce by 13,000. Unless public policy changes course, overall Federal employment is predicted to decline throughout this decade, possibly shifting some Federal jobs to State and local governments. *[Jacqueline Salsgiver, 202-501-7107, jsalsgiv@econ.ag.gov]*

Data Sources

This issue of *Rural Conditions and Trends* uses data from a variety of sources depending on the particular industry. These are described below by article.

Employment and earnings data: Most data on nonmetro employment and earnings in this issue come from the Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce. BEA employment data provide establishment data on the number of jobs. The BEA data are taken primarily from administrative reports filed by employers covered under unemployment insurance laws and from information from the Internal Revenue Service and the Social Security Administration. Thus, jobs and earnings for these jobs are counted at the place of work and are based on a virtual universal count rather than a sample. The BEA data provide detailed information on the number of jobs and amount of earnings by industry at the county level. A shortcoming of the BEA data is the 2-year lag between when they are collected and when they are available for analysis. The most recent data are for 1993. BEA data can be obtained through the World Wide Web at http://www.lib.virginia.edu/socsci/reis/reis1.html.

National economic conditions: The economic indicators used to monitor macroeconomic changes in the U.S. economy are derived from Federal sources. Measures of inflation, including the Consumer and Producers Price Indexes, and employment and unemployment data are developed by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). BLS makes 10-year projections of employment by industry and occupation every 2 years. National income and product account information on capital investment, gross domestic product, and net exports is produced by the Bureau of Economic Analysis (BEA), U.S. Department of Commerce. Information relating to monetary policy, including changes in interest rates and foreign exchange rates, and data on industrial production are furnished by the Federal Reserve Board of Governors.

Farm-related jobs data: Estimates of farm-related jobs are based on the 1992 County Business Patterns file released by the Bureau of the Census, U.S. Department of Commerce, and subsequently enhanced to account for confidential data not published by the Bureau. The County Business Patterns data provide estimates of wage and salary jobs in most industries in the United States. Data on farm proprietors and wage and salary jobs in farm production, as well as nonfarm proprietors, government employment, and railroad workers, are not included in the County Business Patterns. Employment for these excluded groups was obtained from the Bureau of Economic Analysis, U.S. Department of Commerce. Employment data on nonfarm proprietors, available only for major industrial divisions (one-digit Standard Industrial Classification (SIC) level), were distributed among farm-related industries (two-, three-, and four-digit SIC levels) based on the proprietor's share of total employment in the division in which the farm-related industry is classified.

Farm and farm-related employment includes jobs not only in farm production but also in its closely related industries—agricultural services, forestry, and fishing; agricultural inputs; and processing and marketing of agricultural goods—as well as industries peripherally related to farming—wholesale and retail trade of agricultural products and indirect agribusiness. Farm and farm-related industries are identified as industries having generally 50 percent or more of their national workforce employed in providing goods and services necessary to satisfy the final demand for agricultural products. An exception to this criterion is indirect agribusinesses, in which percentages range between 32 and 50 percent.

Food and Fiber Sector Employment Data: The State nonmetro Food and Fiber System (FFS) employment estimates are a subset of the national FFS data published by ERS and the Bureau of the Census, U.S. Department of Commerce. This subset is derived by distributing national FFS data to nonmetro, State, and industrial sectors in the same proportion as the 1992 County Business Patterns (CBP) file released by the Bureau of Census. The data file was subsequently enhanced to account for confidential data not published by the Bureau. To CBP data were added Bureau of Labor Statistics (BLS), U.S. Department of Labor estimates of agricultural and government employment, areas not covered by the CBP file. BLS estimates of State nonmetro employment were used when determining shares of nonmetro FFS employment. Total domestic employment in the Food and Fiber System table equals the civilian labor force, which includes the unemployed.

Agricultural exports data: Data on agricultural exports is published in *Foreign Agricultural Trade of the United States*. Employment due to agricultural exports is derived in the same manner as Food and Fiber Sector employment.

Mining data: The principal source of data for nonfuel minerals and coal was the *1992 Minerals Yearbook*, Volume II published by the Bureau of Mines, Department of the Interior. Data for the oil and gas industries came from the *Annual Energy Review, 1994* from the Energy Information Administration of the U.S. Department of Energy.

Manufacturing data: The Census of Manufactures is collected by the Census Bureau every 5 years by enumerating all U.S. manufacturing establishments. The most recent data are from 1992. ERS requested special tabulations of value added, employment, and wages for metro and nonmetro establishments, and these data were used to compute value added and wages per worker. The analysis of technology use is based on three Surveys of Manufacturing Technology. These are sample surveys of selected manufacturing industries conducted by the Bureau of the Census in 1988, 1991, and 1993.

Retail industry data: The Census of Retail Trade is collected by the Bureau of the Census every 5 years. This census provides geographic detail on number of establishments, sales, and employment for all retail businesses in the United States. The analysis of the retail census data was supplemented by county-level data from census years on population and income from the Bureau of Economic Analysis' Regional Economic Information System. A spreadsheet with retail sales, a sales leakage estimate, income, and population by county for 1982-92 is available from Fred Gale 202-219-0594 or fgale@econ.ag.gov. More up-to-date information on employment and earnings in retail industries through 1995 was obtained from the Bureau of Labor Statistics, which produces monthly estimates based on a survey of business establishments. These data can be obtained through the World Wide Web or gopher at gopher://hopi2.bls.gov:70/11/Time%20Series.

Commercial bank data: Data were compiled for all commercial banks located in the 50 States that are insured by the Federal Deposit Insurance Corporation (FDIC). Data on interstate bank branches and for the time series on the number of banks come from the National Information Center database maintained by the Board of Governors of the Federal Reserve System. Information concerning the number of banking firms operating in rural and urban banking markets is based on deposit data for individual bank branches as of June 30, 1980 and 1993, from the FDIC's Summary of Deposits database.

Government employment data: The government employment article uses BEA data.

Definitions

The data reported in this issue of *Rural Conditions and Trends* are for nonmetro and metro areas, but we use the terms "rural" and "urban" interchangeably with "nonmetro" and "metro." However, in tables and charts we use "nonmetro" and "metro," the original and more accurate terms used in the data sources.

Civilian labor force: Noninstitutional civilians age 16 or older who are either employed or unemployed. Individuals who are neither employed nor unemployed are out of the labor force.

Consumer Price Index (CPI): A measure of the average price level of a basket of consumer goods and services at the retail level for a specific period compared against a benchmark period.

Farm: Any place from which $1,000 worth or more of agricultural products are sold or normally would be sold in a year.

Final demands of the Food and Fiber System: The consumer ready form of the raw farm products purchased by U.S. and foreign consumers. Estimated as U.S. personal consumption spending for food, clothing, shoes, tobacco products, and flowers, seeds, and potted plants, agricultural and textile exports less agricultural and textile imports, changes in government and private holdings of farm commodities, and gross investment in farm capital.

Food and Fiber System (FFS): That set of producers of goods and services required to assemble, process, and distribute raw farm products to U.S. and foreign consumers.

Food and Fiber System income and employment: The income earned and employment provided by the producers in the Food and Fiber System.

Foreign exchange rate: The rate at which one currency is traded for another. The Federal Reserve publishes a measure of the overall foreign exchange rate of the U.S. dollar based on the rates of the 10 major U.S. trading partners.

Gross domestic product (GDP): The value of final output produced by people, government, and firms in the United States, whether they are U.S. or foreign citizens, or U.S.- or foreign-owned firms. Output of U.S. citizens or firms located outside the United States is not included. This statistic is reported quarterly but is revised in each of the 2 months following the initial release.

GDP price deflator: A measure of the average price of final output produced by people, government, and firms in the United States during a specific period compared against a benchmark period.

Inflation rate: The percentage change in a measure of the average price level. The index used to measure inflation depends on the part of the economy being analyzed. In this issue, for example, the GDP Price Deflator is used to measure inflation in the overall national economy and the implicit Personal Consumption Expenditures Price Deflator is used to measure inflation in earnings.

Input-output model: An economic model which presents the economy as a set of sales and purchases between sectors, final demands, and payments to labor, capital, profits, and indirect business taxes.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people and a total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically and socially integrated with the core county. Metro areas are divided into central cities and areas outside central cities (suburbs). Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Appendix table 1—U.S. nonmetro and metro job growth by industry and by region, 1991-93

Item	1993 Nonmetro	1993 Metro	1991 Nonmetro	1991 Metro	Change, 1991-93 Nonmetro	Change, 1991-93 Metro
	Thousands				Percent	
By industry:						
ASFFO [1]	415	1,100	403	1,072	2.9	2.6
Mining	370	522	419	597	-11.8	-12.5
Construction	1,318	5,644	1,226	5,521	7.5	2.2
Manufacturing	4,270	14,469	4,143	14,881	3.1	-2.8
TCPU [2]	1,047	5,578	1,033	5,541	1.4	.7
Wholesale	833	5,819	807	5,824	3.2	-.1
Retail	4,318	19,232	4,087	18,705	5.6	2.8
FIRE [3]	1,109	9,248	1,127	9,420	-1.7	-1.8
Services [4]	5,568	35,177	5,249	33,383	6.1	5.4
Government	4,264	17,248	4,162	17,054	2.5	1.1
Total nonfarm	23,510	114,037	22,657	111,998	3.8	1.8
Farm jobs	1,875	1,189	1,896	1,187	-1.1	.2
Total jobs	25,384	115,228	24,552	113,185	3.4	1.8
By BEA region:						
New England	1,059	6,471	1,045	6,448	1.3	.4
Mideast	1,744	21,985	1,736	22,075	.5	-.4
Great Lakes	4,250	19,185	4,100	18,759	3.7	2.3
Plains	4,101	6,844	3,972	6,632	3.2	3.2
Southeast	8,366	24,796	8,047	23,755	4.0	4.4
Southwest	2,483	11,881	2,407	11,433	3.2	3.9
Rocky Mountain	1,554	3,079	1,458	2,898	6.6	6.3
Far West	1,827	20,987	1,788	21,185	2.2	-.9
Total jobs	25,384	115,228	24,552	113,185	3.4	1.8

Note: totals include all full-time and part-time jobs, both employees and self-employed proprietors.

[1] Includes agricultural services, forestry, fishing, and other miscellaneous services.

[2] Includes transportation, communications, and public utilities.

[3] Includes finance, insurance, and real estate.

[4] Includes health, legal, educational, recreational, business, repair, and personal services.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 2—U.S. nonmetro and metro growth in earnings per job, by industry and by region, 1991-93

Item	1993		1991		Change, 1991-93	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
	Dollars				Percent	
By industry:						
ASFFO [1]	14,700	16,700	14,300	16,600	2.8	0.6
Mining	36,500	41,400	34,900	36,300	4.6	14.0
Construction	21,400	30,000	21,700	30,600	-1.4	-2.0
Manufacturing	28,400	40,600	27,500	39,300	3.3	3.3
TCPU [2]	32,000	40,100	30,800	38,600	3.9	3.9
Wholesale	24,900	37,700	24,400	37,100	2.0	1.6
Retail	13,200	16,100	13,100	16,000	.8	.6
FIRE [3]	15,500	30,100	13,500	25,400	14.8	18.5
Services [4]	17,500	27,200	16,600	26,300	5.4	3.4
Government	23,600	30,700	23,300	30,100	1.3	2.0
Nonfarm average	21,100	29,100	20,500	28,200	2.9	3.2
Farm average	14,800	16,800	14,900	16,200	-.7	3.7
Average—all jobs	20,600	29,000	20,100	28,000	2.5	3.6
By BEA region:						
New England	23,000	31,300	22,600	30,400	1.8	3.0
Mideast	22,200	33,100	21,800	31,700	1.8	4.4
Great Lakes	21,000	28,800	20,200	27,800	4.0	3.6
Plains	18,300	26,500	18,500	25,800	-1.1	2.7
Southeast	20,400	25,600	19,900	24,900	2.5	2.8
Southwest	19,800	26,900	19,000	25,800	4.2	4.3
Rocky Mountain	21,000	25,500	20,200	24,600	4.0	3.7
Far West	23,700	30,400	22,800	29,500	3.9	3.1
Total	20,600	29,000	20,100	28,000	2.5	3.6

Note: Table shows earnings per job, rounded to the nearest hundred. Earnings are converted to 1993 dollars using the implicit price deflator for personal consumption expenditures.

[1] Includes agricultural services, forestry, fishing, and other miscellaneous services.

[2] Includes transportation, communications, and public utilities.

[3] Includes finance, insurance, and real estate.

[4] Includes health, legal, educational, recreational, business, repair, and personal services.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Appendix table 3—Real earnings per nonfarm job in nonmetro and metro areas

Item	1970	1971	1972	1973	1974	1975	1976	1977
				1993 dollars				
United States	26,069	26,362	27,121	27,214	26,487	26,423	27,142	27,253
Nonmetro	20,796	21,099	21,736	22,026	21,687	21,883	22,733	22,678
Metro	27,190	27,495	28,288	28,334	27,523	27,409	28,113	28,250
Metro-nonmetro earnings gap	6,395	6,396	6,552	6,308	5,837	5,525	5,381	5,582
				Percent				
Nonmetro/metro earnings ratio	76.5	75.7	76.8	77.7	78.8	79.8	80.9	80.2
Change from previous year:								
Nonmetro	1.7	1.1	3.0	1.3	-1.5	.9	3.9	-.2
Metro	1.5	1.5	2.9	.2	-2.9	-.4	2.6	.5

Item	1978	1979	1980	1981	1982	1983	1984	1985
				1993 dollars				
United States	27,467	27,276	26,784	26,535	26,443	26,586	26,904	26,991
Nonmetro	22,977	22,878	22,347	22,000	21,649	21,626	21,832	21,621
Metro	28,449	28,228	27,734	27,500	27,456	27,627	27,954	28,082
Metro-nonmetro earnings gap	5,472	5,350	5,386	5,500	5,807	6,001	6,122	6,461
				Percent				
Nonmetro/metro earnings ratio	80.8	81.0	80.6	80.0	78.8	78.3	78.1	77.0
Change from previous year:								
Nonmetro	1.3	-.4	-2.3	-1.6	-1.6	-.1	1.0	-1.0
Metro	.7	-.8	-1.8	-.8	-.2	.6	1.2	.5

Item	1986	1987	1988	1989	1990	1991	1992	1993
				1993 dollars				
United States	27,253	27,277	27,358	27,159	26,901	26,925	27,702	27,763
Nonmetro	21,607	21,288	21,239	21,095	20,740	20,594	20,999	21,134
Metro	28,384	28,469	28,566	28,357	28,124	28,205	29,075	29,129
Metro-nonmetro earnings gap	6,777	7,182	7,327	7,262	7,384	7,611	8,076	7,995
				Percent				
Metro-nonmetro earnings ratio	76.1	74.8	74.4	74.4	73.7	73.0	72.2	72.6
Change from previous year:								
Nonmetro	-.1	-1.5	-.2	-.7	-1.7	-.7	2.0	.6
Metro	1.1	.3	.3	-.7	-.8	.3	3.1	.2

Note: Data for 1984 through 1991 revised by BEA. All years' earnings converted to 1993 dollars using the implicit price deflator for personal consumption expenditures.

Source: Calculated by ERS using data from the Bureau of Economic Analysis Regional Economic Information System.

Appendix table 4—Share of total State employment by farm and farm-related industry, 1992

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
United States	21,595,119	15.8	2.5	0.3	2.4	10.2	0.4
Alabama	403,139	19.4	3.2	.4	5.9	9.5	.5
Alaska	49,650	14.6	2.8	.1	2.3	9.4	—
Arizona	267,768	14.1	1.6	.1	.7	11.6	.1
Arkansas	274,502	22.4	5.7	.7	5.8	9.3	.9
California	2,349,651	14.5	1.9	.2	2.0	10.1	.3
Colorado	307,843	14.6	2.1	.2	1.6	10.5	.2
Connecticut	212,018	11.1	.7	.1	.9	9.0	.3
Delaware	58,040	13.9	1.3	.2	2.3	9.9	.2
Florida	1,070,713	15.9	1.9	.2	1.3	12.2	.3
Georgia	669,771	18.2	2.1	.3	4.9	10.2	.7
Hawaii	121,984	16.4	2.1	.1	1.8	12.4	.1
Idaho	131,210	23.0	6.8	1.0	3.6	10.8	.7
Illinois	926,811	14.4	1.9	.6	1.8	9.6	.5
Indiana	485,621	15.8	2.9	.5	1.6	10.3	.6
Iowa	404,092	24.7	8.3	1.8	4.0	10.1	.5
Kansas	285,020	19.1	5.8	.8	2.7	9.5	.4
Kentucky	403,263	21.2	6.7	.3	3.4	10.2	.5
Louisiana	318,273	15.8	2.5	.4	1.8	10.6	.5
Maine	109,433	17.2	2.4	.1	3.5	10.7	.4
Maryland	335,836	12.8	1.2	.1	1.2	10.0	.3
Massachusetts	445,951	12.8	.6	.1	1.5	10.3	.4
Michigan	655,814	14.1	1.9	.1	1.0	10.7	.3
Minnesota	467,667	17.2	4.4	.6	2.0	9.8	.4
Mississippi	250,394	21.1	4.8	.5	5.7	9.5	.6
Missouri	526,922	17.9	4.5	.5	2.6	9.9	.4
Montana	94,027	21.3	7.5	.6	.9	12.0	.3
Nebraska	232,087	23.5	7.6	1.5	4.0	10.3	.2
Nevada	83,134	11.0	.9	.1	.3	9.6	.1
New Hampshire	84,841	14.0	1.1	.1	1.2	11.4	.3
New Jersey	525,424	12.5	.6	.1	1.8	9.6	.5
New Mexico	119,959	15.4	2.9	.2	.9	11.0	.4
New York	1,166,272	12.4	.9	.1	1.9	9.3	.3
North Carolina	828,411	21.3	2.7	.3	8.0	9.6	.7
North Dakota	92,633	24.5	11.0	1.3	2.1	10.0	—
Ohio	831,174	14.2	1.9	.2	1.2	10.3	.5
Oklahoma	291,626	17.4	5.4	.3	1.7	9.8	.1
Oregon	286,939	17.7	4.4	.3	1.7	10.9	.3
Pennsylvania	944,854	15.1	1.5	.2	2.9	10.2	.4
Rhode Island	66,414	12.9	.5	—	2.0	10.0	.5
South Carolina	374,403	19.9	2.1	.2	6.7	10.2	.8
South Dakota	101,936	24.5	10.4	1.0	2.8	10.1	.2
Tennessee	535,853	19.2	4.1	.3	4.2	10.0	.6
Texas	1,458,451	15.4	2.9	.3	1.8	10.2	.3
Utah	141,356	14.5	2.1	.2	1.7	10.2	.4
Vermont	56,380	17.3	3.6	.3	1.7	11.5	.2
Virginia	541,004	15.1	2.0	.2	3.1	9.4	.5
Washington	467,655	16.3	3.3	.3	1.6	10.8	.3
West Virginia	119,374	15.6	3.3	.3	1.4	10.5	.2
Wisconsin	531,086	18.8	4.2	.7	2.6	10.5	.8
Wyoming	47,634	17.9	5.1	.5	.6	10.6	1.2

— = Less than 0.1 percent.

Source: Calculated by ERS using U.S. Department of Commerce data.

Appendix table 5—Share of total nonmetro employment by farm and farm-related industry, 1992

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
United States	5,972,611	24.9	8.4	0.8	4.9	10.2	0.6
Alabama	180,562	31.4	6.8	.9	13.9	8.9	.9
Alaska	31,728	18.2	4.4	.2	4.2	9.3	—
Arizona	39,874	17.9	2.7	.2	.4	14.5	.1
Arkansas	163,141	27.3	8.9	1.0	7.6	9.1	.8
California	91,770	22.0	7.9	.6	1.4	12.0	.2
Colorado	85,704	23.5	7.5	.6	1.8	13.5	.1
Connecticut	19,047	15.9	1.8	.2	2.7	10.7	.4
Delaware	17,299	28.4	4.5	.6	9.3	14.0	—
Florida	87,930	24.5	8.1	.9	2.2	12.8	.6
Georgia	276,270	27.5	5.7	.7	10.8	9.4	.9
Hawaii	43,622	24.8	6.4	.2	3.2	15.0	—
Idaho	99,180	26.5	8.9	1.3	4.0	11.3	1.0
Illinois	203,434	23.3	8.8	1.3	2.8	9.7	.7
Indiana	160,769	21.0	6.9	.8	2.7	9.7	.9
Iowa	262,995	31.0	13.8	2.3	4.8	9.6	.5
Kansas	171,208	26.9	11.7	1.3	4.7	8.9	.3
Kentucky	227,079	27.0	11.4	.5	5.1	9.6	.4
Louisiana	84,247	21.9	7.6	1.0	3.6	9.0	.8
Maine	61,888	17.9	3.4	.2	3.2	10.7	.5
Maryland	38,465	21.7	4.9	.4	4.0	12.1	.3
Massachusetts	7,189	16.2	3.2	.2	1.5	11.2	.2
Michigan	133,580	19.9	5.9	.4	1.2	12.0	.5
Minnesota	207,588	28.6	12.3	1.4	4.2	10.3	.4
Mississippi	190,302	24.9	6.6	.7	7.7	9.3	.6
Missouri	221,005	28.0	12.5	1.0	4.8	9.4	.4
Montana	74,425	22.8	9.3	.6	.9	11.7	.4
Nebraska	150,478	34.1	15.4	2.7	5.8	10.1	.1
Nevada	14,717	13.6	4.1	.2	.2	9.0	.1
New Hampshire	33,298	14.1	1.5	.1	1.4	10.8	.3
New Mexico	55,502	19.3	5.8	.2	1.0	11.3	1.0
New York	116,443	17.7	4.5	.4	1.8	10.6	.4
North Carolina	323,945	29.5	5.5	.6	13.1	9.7	.7
North Dakota	63,391	31.5	18.2	1.7	2.5	9.2	—
Ohio	189,882	20.4	6.3	.7	2.6	10.0	.9
Oklahoma	145,987	25.4	12.2	.6	3.1	9.2	.2
Oregon	101,636	23.4	8.5	.6	2.2	11.8	.4
Pennsylvania	161,396	20.5	4.1	.4	4.7	11.0	.4
Rhode Island	5,474	12.4	1.2	.1	.3	10.8	—
South Carolina	125,269	27.1	4.5	.3	11.7	9.7	.9
South Dakota	75,214	29.1	15.3	1.3	2.6	9.8	—
Tennessee	216,370	28.0	9.5	.5	8.5	8.7	.8
Texas	346,448	28.2	14.0	.9	3.5	9.6	.3
Utah	40,515	21.6	7.1	.5	2.6	10.9	.5
Vermont	38,101	17.8	4.1	.3	1.7	11.6	.1
Virginia	169,212	25.6	6.4	.5	8.5	9.3	.9
Washington	105,007	25.8	9.8	.9	2.3	12.4	.5
West Virginia	65,253	16.4	4.8	.2	1.6	9.8	.1
Wisconsin	211,868	26.5	10.0	1.4	3.5	10.9	.8
Wyoming	36,904	20.1	6.6	.5	.8	10.4	1.7

Note: New Jersey is not shown because it has no nonmetro areas.
— = Less than 0.1 percent.
Source: Calculated by ERS using Department of Commerce data.

Appendix table 6—Total Food and Fiber System employment by State and sector category, 1994

State	Total	Farm	Food processing	Other manufacturing	Transportation and trade	Eating and drinking places	All other services
				Thousands of jobs			
United States	22,320.1	1,728.2	1,439.6	2,589.8	6,787.0	6,743.7	3,031.9
Alabama	385.6	24.6	28.9	101.0	101.7	90.4	39.0
Alaska	48.0	0.5	4.9	.9	14.0	13.9	13.9
Arizona	295.1	18.6	8.8	11.9	95.3	115.4	45.0
Arkansas	228.6	29.4	35.2	32.9	60.0	51.6	19.6
California	2,689.0	315.9	161.3	240.5	759.2	811.8	400.2
Colorado	334.3	31.6	27.4	13.0	95.5	117.4	49.4
Connecticut	242.9	6.9	7.4	23.9	91.1	73.6	40.0
Delaware	68.5	5.8	6.8	4.5	21.5	20.4	9.3
District of Columbia	62.5	0.0	0.4	2.1	10.6	26.4	22.9
Florida	1,193.3	113.9	44.1	75.2	375.9	405.6	178.6
Georgia	684.9	38.5	47.2	139.6	194.0	191.0	74.7
Hawaii	121.9	7.8	10.4	2.8	33.7	49.2	18.0
Idaho	113.7	27.2	16.2	4.4	27.6	27.7	10.6
Illinois	1,054.5	60.4	81.5	88.4	359.3	315.1	149.9
Indiana	497.7	35.8	33.7	47.7	156.8	171.7	52.2
Iowa	344.0	79.4	47.3	24.1	85.3	80.6	27.3
Kansas	259.1	49.1	27.6	14.5	70.3	71.1	26.6
Kentucky	328.2	27.7	19.3	58.2	92.8	95.7	34.5
Louisiana	314.8	10.9	18.9	30.1	105.8	101.1	48.0
Maine	104.5	6.1	5.6	20.6	32.6	27.4	12.3
Maryland	377.4	15.4	19.4	23.1	131.3	125.8	62.3
Massachusetts	499.7	8.7	20.9	57.0	165.2	164.1	83.8
Michigan	717.4	39.1	39.3	51.5	240.0	260.1	87.4
Minnesota	440.6	52.2	37.8	28.0	136.4	134.8	51.3
Mississippi	210.4	16.0	20.0	50.9	56.7	46.1	20.6
Missouri	478.6	31.2	37.9	48.5	150.3	155.6	55.2
Montana	72.2	10.9	2.3	1.8	22.3	26.5	8.5
Nebraska	218.2	62.5	27.3	9.5	50.6	49.7	18.6
Nevada	103.1	2.3	1.8	2.1	34.0	37.3	25.6
New Hampshire	88.1	2.1	2.5	9.7	34.0	28.8	10.9
New Jersey	606.9	12.1	32.1	75.1	238.8	153.5	95.4
New Mexico	122.1	14.4	3.7	4.8	35.6	45.4	18.2
New York	1,301.0	34.0	57.6	177.7	435.1	361.3	235.2
North Carolina	823.2	61.8	46.4	278.1	186.0	184.5	66.3
North Dakota	68.9	18.8	4.5	1.7	19.4	18.4	6.0
Ohio	911.9	42.8	55.8	79.2	298.6	322.6	113.0
Oklahoma	249.7	31.9	13.3	17.8	73.3	81.4	32.0
Oregon	278.6	32.5	20.1	16.5	87.9	88.5	33.1
Pennsylvania	1,002.5	43.3	82.7	148.0	319.0	287.4	122.2
Rhode Island	71.4	1.4	2.4	10.8	23.0	23.8	9.9
South Carolina	370.5	12.7	12.2	126.5	86.4	97.5	35.2
South Dakota	79.1	21.7	6.2	2.8	21.7	20.4	6.4
Tennessee	482.0	18.8	38.1	107.5	138.5	131.0	48.1
Texas	1,440.8	96.4	90.1	113.5	457.0	460.6	223.3
Utah	143.5	7.2	10.2	9.0	48.1	48.4	20.6
Vermont	49.3	4.4	3.6	3.6	15.9	16.2	5.7
Virginia	563.7	20.7	32.2	100.3	164.6	164.6	81.3
Washington	521.9	60.8	30.9	27.1	139.2	149.6	114.3
West Virginia	112.6	3.3	3.5	12.9	40.2	36.8	15.9
Wisconsin	503.6	52.5	51.8	57.7	142.9	151.6	47.0
Wyoming	40.4	6.1	0.7	1.0	12.1	14.3	6.3

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census, and USDA/ERS.

Appendix table 7—Nonmetro Food and Fiber System employment by State and sector category, 1994

State	Total	Farm	Food processing	Other manufacturing	Transportation and trade	Eating and drinking places	All other services
	Thousands of jobs						
United States	4,676.7	929.0	389.1	809.9	1,086.2	1,092.3	370.2
Alabama	146.0	14.9	10.6	68.2	25.1	20.5	6.7
Alaska	26.4	.5	4.5	.6	6.8	5.9	8.1
Arizona	35.5	4.3	.4	.7	11.4	15.4	3.3
Arkansas	121.2	22.6	19.1	22.6	26.8	22.3	7.8
California	90.8	34.8	3.3	2.7	19.8	22.2	8.0
Colorado	76.3	21.0	3.4	1.1	15.8	26.4	8.6
Connecticut	16.4	1.2	1.2	2.8	5.4	4.7	1.1
Delaware	16.1	3.1	4.3	1.2	3.3	3.7	.5
District of Columbia	0	0	0	0	0	0	0
Florida	83.8	26.9	3.8	5.0	18.6	21.0	8.5
Georgia	233.1	29.8	18.5	84.0	46.2	40.8	13.8
Hawaii	37.8	6.0	5.1	.2	8.9	13.3	4.3
Idaho	80.8	23.4	11.3	3.3	18.6	17.5	6.7
Illinois	161.8	41.0	12.6	13.3	40.8	41.5	12.6
Indiana	126.7	21.9	11.0	14.8	33.8	36.2	9.0
Iowa	195.2	69.2	25.5	12.8	39.5	37.4	10.8
Kansas	131.7	43.2	18.8	6.5	26.8	27.5	8.9
Kentucky	153.9	21.2	8.0	38.1	38.1	35.2	13.3
Louisiana	59.3	7.3	4.6	11.2	17.4	12.3	6.5
Maine	54.2	4.6	2.2	11.5	15.7	13.9	6.3
Maryland	33.2	5.1	4.5	1.3	9.1	10.2	3.0
Massachusetts	6.5	.8	.5	.5	1.9	2.4	.4
Michigan	111.1	18.0	5.2	6.7	32.5	38.2	10.5
Minnesota	144.6	39.7	18.4	10.1	33.7	33.5	9.2
Mississippi	148.3	14.6	14.6	44.8	36.5	26.8	11.0
Missouri	136.6	24.0	11.1	22.9	34.0	34.9	9.7
Montana	51.9	10.1	1.1	1.4	14.6	18.6	6.1
Nebraska	126.4	58.0	16.1	4.1	22.5	20.7	5.0
Nevada	13.3	1.8	.1	.1	4.0	4.7	2.6
New Hampshire	32.0	1.2	.5	4.6	11.6	10.6	3.5
New Jersey	0	0	0	0	0	0	0
New Mexico	50.1	11.0	1.3	1.6	13.6	15.7	6.9
New York	97.4	14.3	4.5	10.2	28.7	30.7	9.0
North Carolina	291.4	36.2	17.9	126.8	50.2	46.5	13.8
North Dakota	39.4	16.6	2.1	.7	9.0	8.5	2.5
Ohio	158.1	23.9	15.7	20.0	39.4	46.2	12.9
Oklahoma	94.7	25.5	6.0	9.4	22.4	22.7	8.7
Oregon	80.6	17.2	6.8	4.0	20.1	24.1	8.4
Pennsylvania	145.0	16.2	12.5	29.7	38.7	36.4	11.5
Rhode Island	5.0	.3	0	0	1.5	2.8	.4
South Carolina	110.4	7.0	4.3	52.9	19.4	20.1	6.7
South Dakota	50.7	19.9	2.2	1.6	12.3	11.4	3.3
Tennessee	148.4	12.5	10.8	61.8	29.2	26.1	8.0
Texas	216.3	64.6	21.8	13.9	50.5	44.9	20.6
Utah	31.0	5.1	3.2	1.1	8.4	9.8	3.4
Vermont	31.5	3.3	1.7	2.4	10.0	10.4	3.7
Virginia	140.5	12.9	10.9	49.0	29.9	26.9	10.9
Washington	91.3	28.6	5.8	5.1	18.7	22.5	10.6
West Virginia	54.4	2.5	1.4	6.0	19.3	16.4	8.8
Wisconsin	160.9	35.7	19.3	15.9	38.0	42.3	9.7
Wyoming	28.7	5.5	.6	.7	7.7	9.6	4.6

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, Bureau of the Census, and USDA.

Appendix table 8—Government employment in nonmetro areas by State, 1980-93

State	1980	1993	Increase, 1980-93
	Thousand		Percent
United States	3,703.0	4,276.0	15.4
Alabama	100.9	102.9	1.9
Alaska	45.6	58.2	27.6
Arizona	44.7	57.8	29.2
Arkansas	79.8	87.8	10.0
California	72.2	87.4	21.2
Colorado	44.4	60.4	36.3
Connecticut	11.4	14.2	24.0
Delaware	5.8	6.9	17.5
Florida	54.8	74.0	35.0
Georgia	157.7	205.7	30.4
Hawaii	15.7	24.3	55.0
Idaho	60.2	72.0	19.7
Illinois	125.8	134.6	7.0
Indiana	96.9	109.9	13.4
Iowa	122.0	128.5	5.4
Kansas	117.0	136.4	16.6
Kentucky	132.8	149.8	12.8
Louisiana	91.6	100.8	10.1
Maine	59.0	64.5	9.3
Maryland	23.1	28.7	24.1
Massachusetts	4.9	5.7	16.3
Michigan	110.4	121.7	10.3
Minnesota	99.2	111.9	12.8
Mississippi	140.2	148.8	6.2
Missouri	131.7	145.6	10.5
Montana	56.7	63.7	12.5
Nebraska	66.8	72.7	8.9
Nevada	16.1	21.9	36.5
New Hampshire	29.2	35.8	22.8
New Mexico	59.0	70.0	18.8
New York	110.7	137.0	23.7
North Carolina	152.8	184.8	21.0
North Dakota	36.6	37.9	3.6
Oklahoma	103.0	114.8	11.5
Oregon	68.2	76.9	12.8
Pennsylvania	109.5	110.7	1.1
Rhode Island	12.0	12.2	2.0
South Carolina	80.7	88.2	9.2
South Dakota	45.3	50.0	10.3
Tennessee	102.2	105.6	3.3
Texas	178.9	231.9	29.6
Utah	32.4	40.6	25.0
Vermont	26.0	31.7	22.0
Virginia	89.6	108.1	20.7
Washington	65.6	81.0	23.3
West Virginia	75.5	80.0	5.6
Wisconsin	95.9	113.4	18.2
Wyoming	31.6	40.3	27.7

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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1996 Has Been a Year of Federal Program Reductions, Disruptions, and Reforms

Most rural areas have experienced some reductions or disruptions in Federal assistance during fiscal year 1996. Meanwhile, efforts to overhaul major Federal programs and regulations have begun and promise more significant changes in the future.

This issue of *Rural Conditions and Trends* describes Federal program and policy changes and their significance for rural areas. Our focus is on programs traditionally associated with rural development, such as assistance for infrastructure, businesses, and housing. However, we also look at many other programs of importance to rural communities and economies, like the environment and natural resources, agriculture, defense, social security, health, and education and training programs. We also discuss major tax and regulatory changes. The result is a fairly comprehensive review of how changes in Federal Government activities play out over the rural landscape.

Originally, this issue of *RCaT* was to examine only those changes that were adopted in legislation or regulations in fiscal year 1995 and that would take effect in fiscal year 1996. However, 1995 proved to be an unusual year in that the fate of many programs was delayed for over 6 months due to the inability of Congress and the administration to reconcile the fiscal year 1996 budget until the end of April 1996. Consequently, this issue of *RCaT* covers changes that were adopted in 1995 plus some changes adopted in early 1996.

We restricted our analysis to the largest and most important programs for rural development, focusing, where possible, on programs expected to change significantly in 1995-96. In most cases, the focus is on changes that have already been enacted by Congress or initiated by the administration. Like other issues of *Rural Conditions and Trends*, this issue is descriptive in nature. The analysis describes program activities, objectives, geographic allocations, and changes in program budgets and characteristics. Where relevant, the authors (all researchers in Economic Research Service's (ERS) Rural Economy Division) have added information about rural conditions to provide a context for understanding the roles different programs play in rural areas.

To indicate the rural places affected by Federal policies, we used the Census Bureau's 1994 Consolidated Federal Funds Reports data (also known as the Federal Funds data) to map the geographic distribution of selected Federal programs. These data vary among programs: some are accurate to the county level while others are only accurate to the State level. The limitations of the Federal Funds data are discussed in the appendix. We developed State typologies (see appendix) to compare program funding by type of State. The U.S. Department of Agriculture's (USDA) ERS nonmetro county typologies were used to compare program funding levels for different types of counties (see appendix). Where the Federal Funds data are inappropriate or misleading, other data sources are used.

Major Themes Include Budget Cuts, Shutdowns, Farm Legislation, Reform Proposals

Cutting the Federal deficit was an early priority of both the 104th Congress and the Clinton administration. The rescissions legislation enacted in July 1995 cut $16 billion in unobligated funds in fiscal year 1995 while providing an additional $7 billion in emergency disaster assistance, resulting in a net $9-billion reduction in Federal spending. These spending cuts were not evenly distributed but fell heavily on transportation (airports), housing (public housing), and several other functions.

As fiscal year 1995 ended, disagreement over how to reduce the deficit left many Federal agencies without regular appropriations for over 6 months (from October 1995 to April 1996) in fiscal year 1996. Many programs were temporarily shut down, or operated much, if not all, of the fiscal year on temporary and reduced funding. Temporary shutdowns caused disruptions in services that in some cases had significant adverse effects, such as in places that depend on national parks for tourism. Similar disruptions in other activities were less visible but more widespread, such as short-term cutbacks in environmental enforcement and school planning difficulties associated with uncertainties about Federal aid for the 1996-97 school year.

Nine cabinet-level departments were affected: Education, Housing and Urban Development (HUD), Health and Human Services (HHS), Commerce, State, Interior, Veterans Affairs, Justice, and Labor. These and many other agencies operated under temporary continuing resolutions until the end of April 1996, when the Omnibus Spending Act of 1996 provided their appropriations through the end of the fiscal year (September 30, 1996). This legislation made fiscal year 1996 budget cuts of about $23 billion in discretionary funding compared with fiscal year 1995 budget levels. Among the programs with substantial budget cuts, in percentage terms, were the Department of Commerce's Economic Development Administration (EDA) programs (20 percent), the Advanced Technology Program (49 percent), Native American programs (8 percent), the summer youth program (28 percent), the Perkins college loan program for disadvantaged students (36 percent), homeless assistance (25 percent), the Legal Services Corporation (31 percent), and the endangered species program (17 percent). These cuts may help reduce the deficit and, therefore, reduce Federal debt-service cost and its associated tax burden. However, the rural people and places that benefit from these programs will be adversely affected. In contrast, some programs received budget increases from this legislation, including Head Start and funding for AIDS. This legislation also provided $1.4 billion for community policing (up from $1.3 billion in fiscal year 1995), plus $0.5 billion for the local law enforcement block grant.

The Federal Agriculture Improvement and Reform Act of 1996, signed on April 4, reauthorized many of USDA's rural programs for fiscal years 1996-2002. In addition to reforming the Nation's farm programs, this legislation reforms most of USDA's rural development programs as part of the Rural Community Action Program (RCAP). RCAP will allow for increased coordination, planning, and capacity building at the State level, and allows for greater flexibility and transferability of program funds within USDA's three primary rural development functions (housing, infrastructure, and business assistance) to make better use of resources and include local participation. RCAP also requires annual strategic plans with performance benchmarks for each State. This legislation also authorized the creation of a Fund for Rural America. The Secretary would have discretion over the new fund, except that one-third must be devoted to rural development, one-third to research, and one-third to either rural development or research. The new Fund is authorized to begin to spend money on January 1, 1997. A total of $300 million has been appropriated, $100 million a year for 3 years.

Proposals to reform many other programs, including Education, Commerce, Labor, Environmental Protection Agency (EPA), HUD, and HHS programs, were debated in 1995 and in early 1996, but most of the major reform proposals were not enacted. Congress initially proposed to consolidate many of these programs and hand them over to the States to administer as new Federal block grants. The Clinton administration's plans for reinventing government also called for major program reforms and consolidations, but in most cases they would have retained Federal administration of the programs, as with the new RCAP program. Block grants give States flexibility, within limits, to retarget assistance. Program consolidations, even when not associated with block grants, can have a similar effect. Thus, when major reforms such as block grants and program consolidations occur, it is difficult to anticipate how these might affect local areas and the distribution of funding.

The two block grant proposals that received the most attention in 1995 were welfare reform and health reform. Despite some bipartisan agreement behind major components of welfare reform, such as time limits for welfare recipients and the notion of workfare, disagreements over funding for child care and other issues stood in the way of welfare reform during 1995. However, in August 1996, welfare reform was enacted. In the same month, health insurance reform, which, among other things, requires that insurers offer continuing coverage to workers who change or lose their jobs, was enacted. This legislation, however, did not include provisions to block grant the two large and growing health programs, Medicaid and Medicare. Like welfare reform, health reform continues to be debated, and its significance for rural areas is underscored in this report.

While attracting less attention from the general public, changes made in Agriculture and Defense programs may significantly affect many rural areas for many years to come. The 1996 farm legislation represents a major overhaul of Federal assistance to farmers, altering the system of income support payments and granting farmers greater planting flexibility. While the possibility that the farm payment safety net may be phased out creates uncertainties for the future, some farming areas should benefit at least in the short term from the act's provisions that allow farmers to continue to receive income payments for several years without the previous reduction associated with expected higher than normal farm prices. The reduction in defense spending in fiscal year 1996, and possible future reductions as reflected in the defense authorization bill, will probably be more important to urban areas than to rural areas. However, these reductions may adversely affect many rural people and places, particularly places with defense base closures.

Many reform proposals in 1995 involved tax cuts or regulatory changes. The flat tax and other major tax reforms have been debated, but no major new tax changes occurred. Rural people and places, though, continue to feel the effect of the significant increase in the earned income tax credit that benefits low-income families and which is being phased in over several years. Most proposed regulatory changes, including the "regulatory flexibility" and "regulatory reform" legislation, proposed changes in product liability rules, legal reforms, and reform of labor safety regulations were not enacted. However, 1995 and early 1996 saw some significant regulatory changes affecting rural credit, the environment and natural resources, electricity and telecommunications, and several other areas. Although we discuss these changes, it is too early to predict the effects of these changes.

The recently enacted welfare reform, health insurance reform, and minimum wage increase will not take effect until fiscal year 1997 and beyond. Consequently, we will cover this legislation in next year's issue of *Rural Conditions and Trends*.

This Report Covers 11 Program Categories

We report on program changes in 11 categories. The first four categories—general development, infrastructure, housing, and business assistance—may be viewed as basic development programs for rural areas. They include USDA's main rural development programs, and key development programs of HUD, Transportation, EPA, the Small Business Administration, the Appalachian Regional Commission, and the Economic Development Administration. Most of these programs include local economic and community development as major program goals. The other seven program categories are important to rural development though they are often not closely associated with rural development. These seven categories include education and training, natural resources and the environment, income support, health, agriculture, defense, and miscellaneous programs (includes social services, trade, and Native American programs). Next comes our coverage of tax and regulatory changes, followed by the appendixes, which describe data sources and definitions and include a table with budgetary information on selected programs. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

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General Assistance Aids Comprehensive Development Strategies

Recent U.S. Department of Agriculture initiatives have helped to concentrate various forms of assistance in places with great needs, such as in high-poverty areas in the South and in timber-dependent areas in the Pacific Northwest. Economic Development Administration and Federal Emergency Management Agency programs have recently concentrated general assistance in places affected by natural disasters.

General development assistance facilitates the planning and coordination of government, private, and nonprofit sector resources to promote economic and community development. It comes in various forms and can be used in conjunction with many other programs, including infrastructure, business, and housing programs covered elsewhere in this report. Its flexibility makes general assistance ideal for comprehensive development strategies. It is also well suited for responding to problems unique to particular places or situations, such as in persistently poor places and in places adversely affected by natural disasters or structural economic changes.

Among the most important of such programs for rural areas are USDA's rural Empowerment Zone and Enterprise Community (EZ/EC) program and the Cooperative State Research, Education, and Extension Service's (CSREES) planning and technical assistance activities, the Commerce Department's Economic Development Administration's (EDA) planning and technical assistance grants and economic adjustment grants, the Department of Housing and Urban Development's (HUD) Small Cities Community Development Block Grant (CDBG) program, the Appalachian Regional Commission's (ARC) regional development programs, and the Federal Emergency Management Agency's (FEMA) disaster assistance. However, other programs also fit within this category.

USDA Has Several Important General Assistance Programs

USDA's EZ/EC program provides tax incentives, grants, and regulatory relief to about 100 high-poverty areas across the country, including 33 rural EZ/EC's (3 EZ's, 30 EC's) designated by the Secretary of Agriculture in December 1994, following a competition in which several hundred communities performed grass-roots strategic planning to create comprehensive plans for economic, community, and human development. The tax incentives go mainly to the EZ's. Each of the rural EZ's also gets $40 million in general purpose title XX grants from HHS. Each EC gets $3 million in title XX grants. As part of the Administration's EZ/EC initiative, the EZ/EC's also get priority when applying for other development-oriented grants and loans from various Federal agencies. For example, Congress earmarked $71 million in fiscal year 1995 and $67 million in 1996 from USDA's rural development programs for rural EZ/EC's. (Unless otherwise indicated, references to years in this article refer to fiscal years). USDA has also given some technical assistance to "Champion Communities"—rural communities that applied but did not receive EZ/EC designations. Most rural EZ/EC's only began to receive funding late in 1995, so the program's effect is just beginning. The geographic effect of this program has been primarily in the Southeast, Appalachia, the Mississippi Delta, and the Southwest, where rural poverty is greatest.

USDA has also begun to assist Rural Economic Area Partnership (REAP) zones—areas in North Dakota that have experienced significant outmigration and job loss. The first two zones were established in 1995 and received $25,000 each to develop strategic plans and benchmarking. USDA is committed to providing an additional $50,000 to capitalize an economic development fund for projects in these zones, and $10 million over 5 years in USDA development program set-asides.

CSREES's extension activities provide rural people and communities with valuable technical assistance that incorporates research results into practical solutions for rural problems. Because rural communities often lack the trained staff that exists in urban areas to review state of the art approaches to community solutions, these extension activities provide a much-needed service for rural development. Extension activities are provided through Land Grant universities which are spread across the country. Federal funding for total extension activities declined slightly from $439 million in 1995 to $422 million in 1996.

Other USDA programs that provide general development assistance include Rural Economic Development Grants ($20 million in 1996), and Resource Conservation and Development Areas ($29 million in 1996). The 1996 farm legislation also authorized the Rural Business Opportunity Grants, which could be used for technical assistance and training, conducting local or multi-county economic development planning, coordination of economic development activities, and leadership development training.

The Forest Service's Economic Recovery and Rural Development programs ($14.5 million in 1996) assist timber-dependent and persistent-poverty communities in diversifying their economies and building development capacity. In addition to its regular economic action aid, the Forest Service is contributing another $16 million in specially appropriated economic action funds, plus an additional $13.5 million in funding from its Jobs in the Woods program, in 1996 to the administration's Northwest Economic Adjustment Initiative. This initiative combines funding from various Federal agencies, including USDA, Interior, Commerce, Labor, and EPA, to provide a comprehensive solution to serious problems in the Northwest. This presidential initiative distributed $219 million (out of $260 million in appropriated funds) in Federal grants, loans, and contracts last year for economic and community development in the Pacific Northwest in 1995 in response to economic difficulties associated with declining employment in the forest industry. Total Federal resources for this initiative are expected to remain the same, or perhaps decline slightly, in 1996.

EDA's General Assistance Programs Are Small But Important for Rural Areas

EDA's Economic Development-Technical Assistance Program ($11 million in 1995) assists economic development in distressed areas. EDA's Economic Development-Support for Planning Organizations ($22 million in 1995) helps fund planning organizations in multicounty Economic Development Districts, redevelopment areas, and for Native American tribes. The planning support program plays a key role in developing and maintaining planning capacity that is lacking in many distressed rural areas and, equally important, it furthers regional solutions to regional problems. 1996 funding for both of these programs was cut about 10 percent. The technical assistance program was funded at about $10 million, while the planning program was funded at $19 million.

EDA's Special Economic Development and Adjustment Assistance Program helps State and local areas develop and implement strategies to adjust to economic difficulties from sudden and severe economic dislocation, such as plant closings, military base closures, defense contract cutbacks, and natural disasters. This program provided $291 million in 1995 but was held to $139 million in 1996 (including $30 million in economic adjustment grants and $90 million in defense conversion assistance).

Of the three forms of EDA assistance, technical assistance was most widely available in nonmetro areas (fig. 1). Adjustment assistance was the most concentrated of the three programs, with much of its 1994 funding going to Midwestern places affected by the serious flooding and to places in the Northwest affected by problems in the timber industry.

HUD's Small Cities CDBG Program Aids Both Economic and Community Development

The HUD Small Cities block grant program assists only small towns and rural areas outside metro/urban counties. Except in New York and Hawaii, this program is administered by the States, which have broad discretion in how the funding can be used, both in terms of function (housing, infrastructure, and employment generation) and form (grants and revolving loans). Small Cities Community Development Block Grant (CDBG) funds are valued for their flexibility and also for their ability to leverage matching funds from other Federal programs and from private sources.

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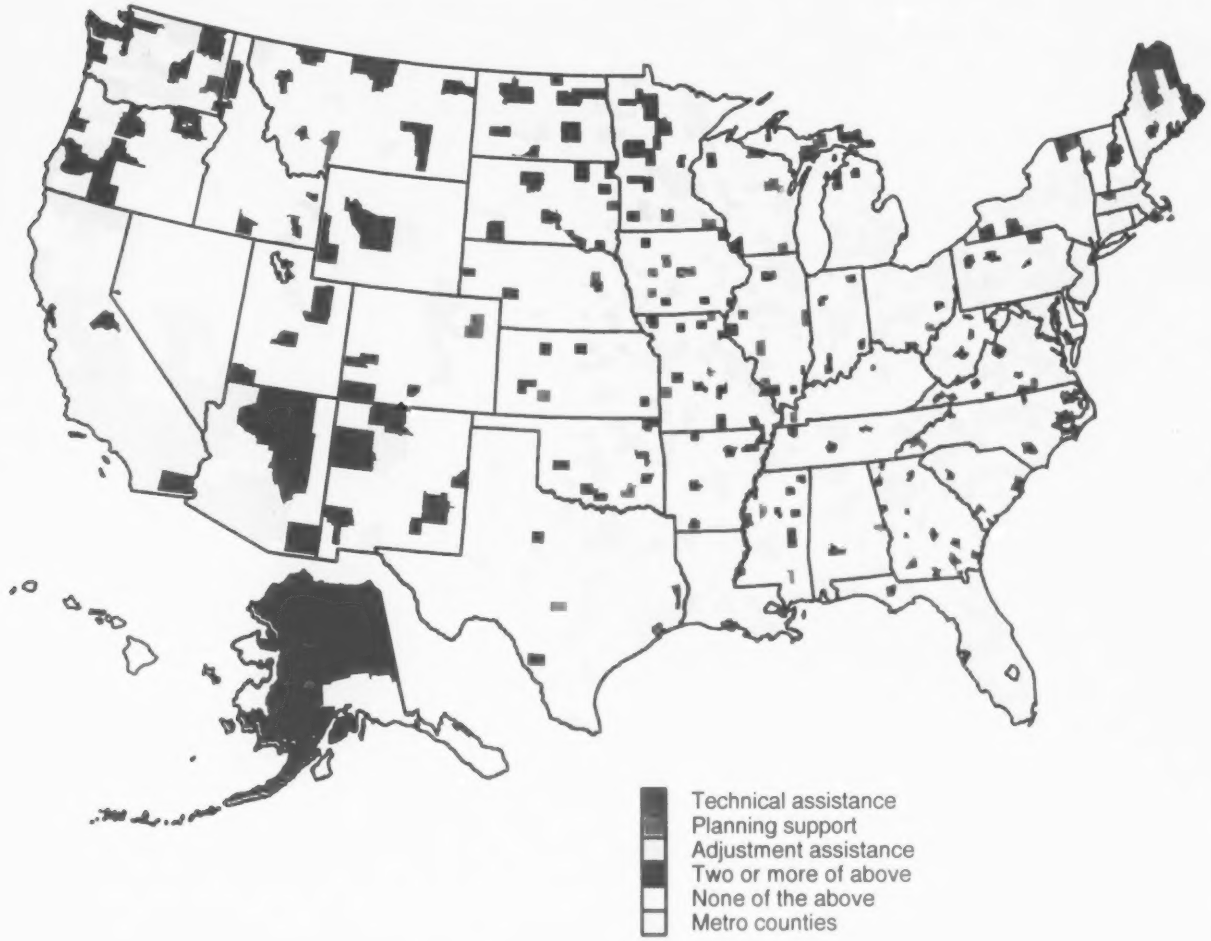
Figure 1

Counties receiving general development assistance from three EDA programs, fiscal year 1994

Technical assistance is the most common form of general assistance



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Because this is a block grant, we have no county-level data on local allocations across the country; but State-level data show, not surprisingly, that the program is particularly important to rural States, which receive the highest per capita dollars (fig. 2). When State receipts are measured per nonmetro person, however, a different pattern emerges, showing that nonmetro populations in the Northeast and Midwest States tend to benefit more, and nonmetro populations in Western States (excluding California) benefit less (fig. 3). Thus, while rural States tend to benefit more from this program than urban States, rural populations in some urban States benefit more than rural populations in some rural States. This results from the aid formula that allocates aid among the States. Funding for this program was held constant at its 1995 level of $1.3 billion.

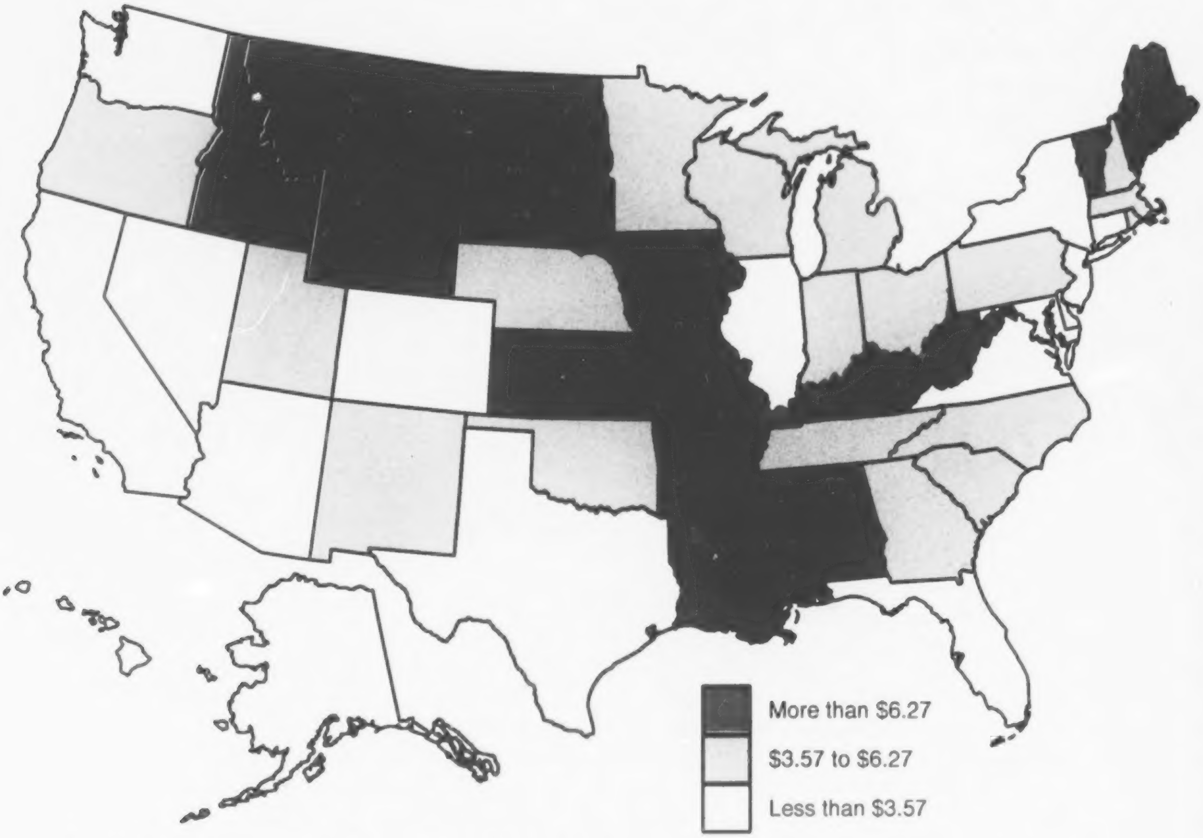
ARC Provides Comprehensive and Integrated Assistance

Rural Appalachia generally suffers from low incomes and other barriers to development. Federal aid to the Appalachian Regional Commission (ARC) local development districts, though only $5 million in 1996, plays an important role in planning for rural development

Figure 2

Per capita funding from the State/small cities program in fiscal year 1994

Rural States are the main beneficiaries



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

in the region. ARC's largest program is the highway program, $197 million in 1996, which is substantially higher than $133 million in 1995. However, ARC's area development programs, which include education, housing, and other forms of assistance, were cut from $101 million in 1995 to $92 million in 1996.

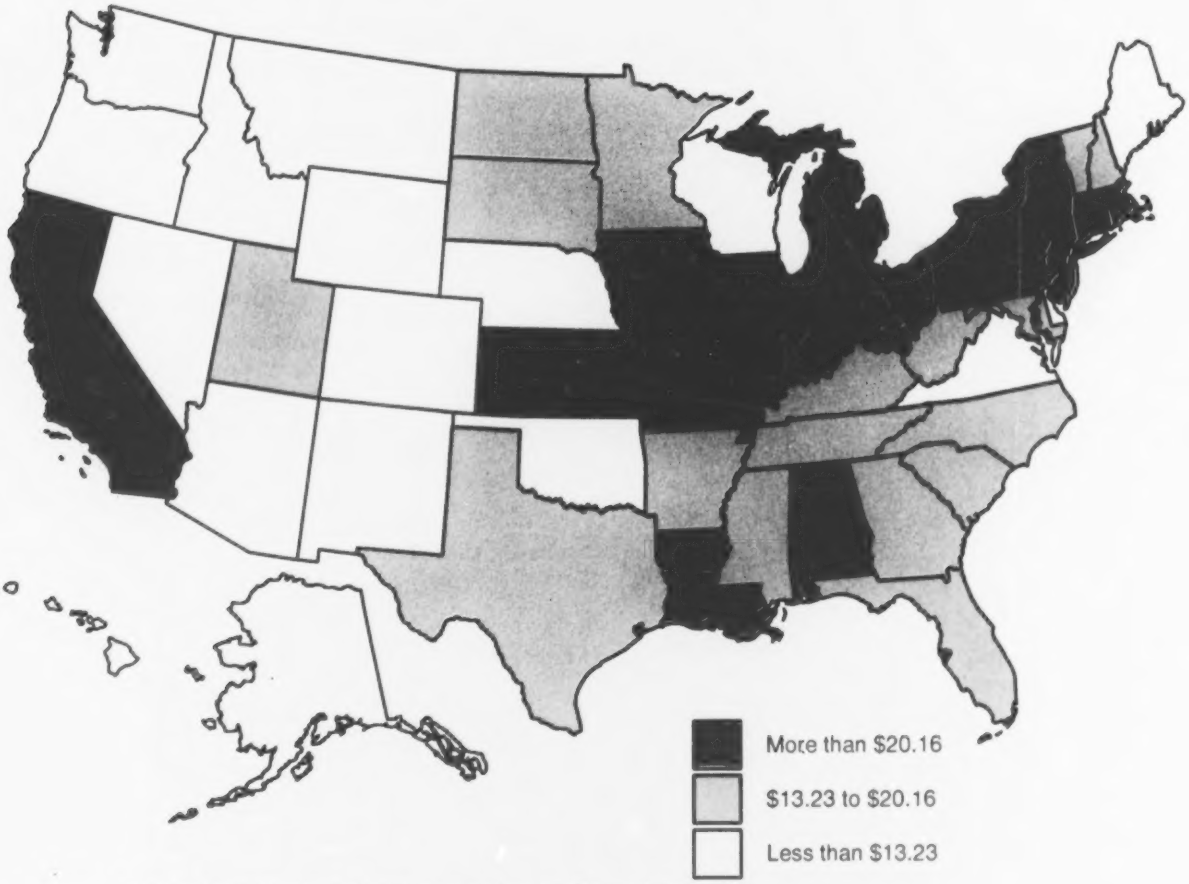
FEMA's Disaster Assistance Helps Many Rural Areas

FEMA's disaster assistance program provides cost-sharing grants to State and local governments, nonprofits, and individuals to alleviate suffering and hardship from major disasters or emergencies declared by the President. Although the places assisted vary annually, communities located along rivers, coastal areas, and fault lines tend to benefit most from these programs because floods, hurricanes, and earthquakes usually cause the costliest emergencies. In 1995, FEMA's disaster assistance was funded at $2.9 billion. The original estimate for 1996 was $2.8 billion. The Omnibus Spending Act, passed in April 1996, cut this by about $1 billion. In the event of major new disasters, however, sup-

Figure 3

State/small cities program funding per nonmetro person in fiscal year 1994

Nonmetro funding tends to be higher in the Northeast and Midwest, lower in the West



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

plemental budget authority could be added. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Some Infrastructure Programs Cut

Cutbacks occurred in 1995-96 in various Federal infrastructure programs covering transportation, wastewater, and public works. New Federal infrastructure initiatives include a program for financing drinking water systems, the 1996 farm legislation's Fund for Rural America, and provisions of the Telecommunications Act of 1996 for universal service in rural areas.

A well-functioning infrastructure network (composed of transportation, waste and wastewater, telecommunications, and other public facilities) is an important component of rural economic development. Recently, cutbacks have been implemented in a variety of Federal infrastructure programs, including public transit, passenger rail, airports, wastewater infrastructure, and public works. A major new Federal program designed to help States build and improve their drinking water systems was enacted, but will not take effect until fiscal year 1997. The 1996 farm legislation also authorizes increased funding for rural infrastructure beginning in 1997. Universal telecommunications service contained in the Telecommunications Act of 1996 also initiates a regulatory process in support of future rural telecommunications infrastructure projects.

Many Transportation Programs Received Reduced Funding

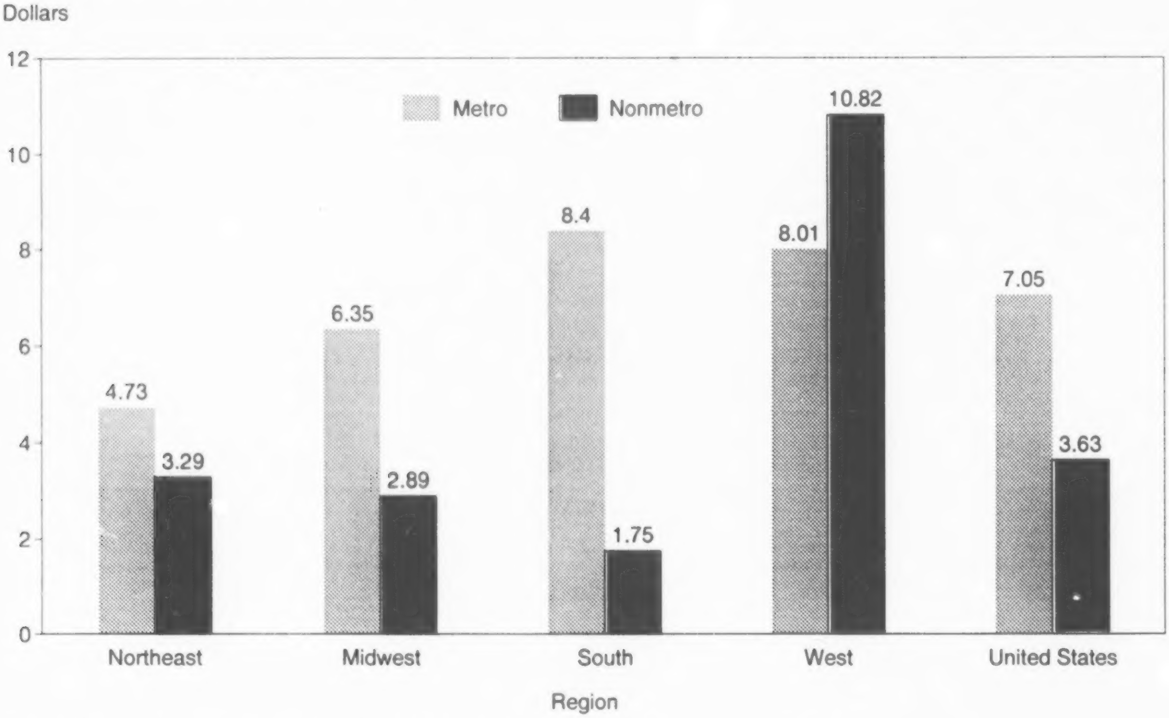
The largest funding cuts among infrastructure programs involved transportation. In mid-1995, the Rescissions Act (P.L. 104-19) cut $2.1 billion in airport capital accounts that fund airport improvements in many rural areas and $132 million for Federal-Aid Highway funding. Both of these programs are important in the West, especially in nonmetro counties (fig. 1). The fiscal year 1996 Omnibus Spending Act (P.L. 104-134) also cut $664 million in unused accounts from the $1.45-billion (fiscal year 1996) Airport Improvement Program, and added $300 million to the $20.8-billion Federal-Aid Highway Program.

Additional funding cuts resulted from the fiscal year 1996 transportation appropriations legislation (P.L. 104-50). Specifically, rural areas will be affected by the 16-percent fund-

Figure 1

Per capita grants for Airport Improvement Program, fiscal year 1994

Nonmetro counties in the West get most aid



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

ing decrease in the Nonurbanized Area Formula Apportionments for Public Transportation (Section 5311). Because Federal human service programs are an important source of funding for public transportation programs affecting low-income and elderly populations, future cuts in medicaid and medicare might also significantly affect transportation services available to these groups, particularly in rural poverty and retirement counties.

Other programs associated with transportation infrastructure that received reduced funding for fiscal year 1996 include Essential Air Services, Amtrak, and Local Rail Freight Assistance. The Essential Air Services Program provided about $30 million in fiscal year 1995 to restore air service to small communities that lost it after deregulation; its funding was cut over 25 percent. Some rural areas may also be hurt by the nearly 25-percent reduction in the Federal subsidy for the Nation's passenger rail network. Amtrak represents one of the few viable transportation options for residents in some rural communities, particularly for persons without access to automobiles. Hence, low-income residents, the elderly, and persons with disabilities may be hurt most. The Local Rail Freight Assistance Program, which provided $10 million in fiscal year 1995 for the maintenance of rail lines as freight carriers abandoned or cut back service, received no funding in the fiscal year 1996 transportation appropriation. These cutbacks will not have a widespread negative effect on nonmetro America, but specific rural areas that rely on these programs could be hard hit.

Some Environmental Infrastructure Programs Were Cut

Environmental infrastructure is a key to sustainable development in rural areas. The Environmental Protection Agency (EPA), which had to operate without permanent appropriations for more than half of fiscal year 1996, operates the clean water State Revolving Fund (SRF) Program. This $1.35-billion program (fiscal year 1996), which finances the construction of wastewater treatment facilities, lost nearly $1.1 billion in unused accounts under the 1995 Rescissions Act. The clean water SRF Program also oversees a new $50-million fund for wastewater treatment in impoverished communities. Additional provisions include $150 million for construction of wastewater facilities in the lower Rio Grande Valley, with a $50-million match by the State of Texas, and $15 million in grants for wastewater infrastructure in Native Alaskan villages.

Rural communities, in particular, might benefit from a new Federal program aimed at helping States build and improve their drinking water systems. This program authorizes $7.6 billion over 5 years for State revolving loan funds (RLF's) to improve drinking water starting in fiscal year 1997.

USDA's Rural Utilities Service (RUS) operates the $1.3 billion (fiscal year 1995) Water and Waste Disposal Program. This program, which was cut about 25 percent under the 1996 USDA appropriation, provides financial assistance (loans and grants) to nonmetro communities with populations of less than 10,000. About a quarter of all nonmetro counties received assistance in fiscal year 1994 under this program (fig. 2). USDA's Water 2000 initiative uses Federal funds to leverage private sector money to deliver safe, affordable drinking water by the year 2000 to the estimated 1.2 million rural residents without complete indoor plumbing facilities. In 1995, Water 2000 funded 217 new water treatment systems; it is projected to fund about 150 new systems in 1996.

Telecommunications Programs to Receive Greater Emphasis in Future

The Commerce Department's Telecommunications and Information Infrastructure Assistance Program is designed to promote the widespread use of advanced telecommunications (such as the Information Superhighway) throughout the Nation. This small program ($42 million in fiscal year 1995) directly benefits rural areas by using telecommunications to improve the quality and increase the accessibility of various social services, such as health care and education. Its budget was cut nearly in half in fiscal year 1996.

USDA's RUS operates the $935-million (fiscal year 1996) rural electrification and the $490-million (fiscal year 1996) rural telecommunication loan programs. These programs provide loans for upgrading and expanding facilities to improve electric and telephone service to rural residents, and both received modest funding increases in fiscal year 1996.

Looking to the future, the Telecommunications Act of 1996 (P.L. 104-104), which deregulates the telecommunications industry (see section on Regulations), endorsed the concept of universal service so that rural areas with low population density and limited economic opportunities will not be excluded from the benefits of modern telecommunications technology. To achieve this, subsidies offered through the RUS will be provided to reduce connection costs. The 1996 farm legislation also authorized $100 million annually in grants and loans for using technology to provide medical and educational services in rural areas.

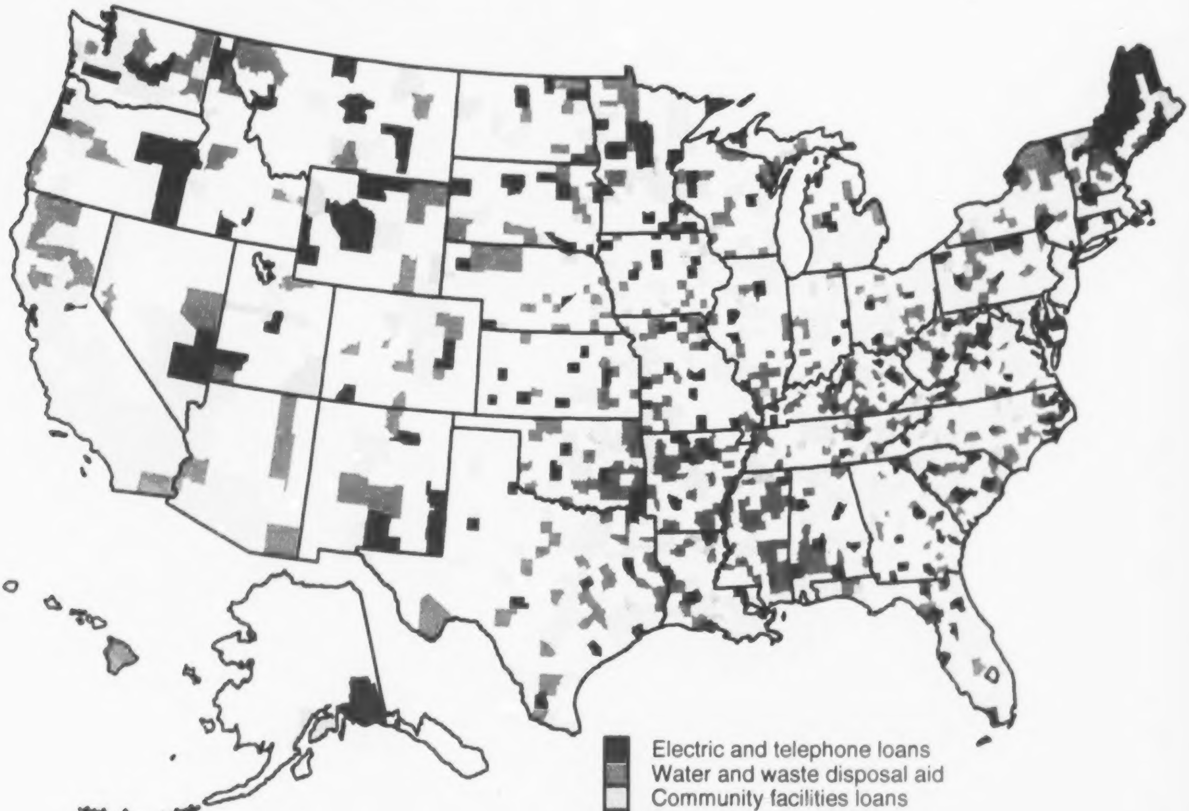
Changes in Other Infrastructure Programs

USDA operates a number of other important rural infrastructure programs. For example, the Forest Service's $313-million (fiscal year 1995) Payments to States Program provides grants for public schools and public roads located on national forest lands. This program was cut modestly (5 percent) in fiscal year 1996, mainly affecting rural areas in the West.

Figure 2

USDA rural infrastructure programs, fiscal year 1994

One-third of all nonmetro counties receive aid


Electric and telephone loans
Water and waste disposal aid
Community facilities loans
2 or more types of aid
None of the above
Metro counties

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

In contrast, the Rural Housing Service's $227-million (fiscal year 1995) Community Facilities Loan Program, which provides direct and guaranteed loans for a variety of community facilities in rural areas, received a funding increase of 25 percent in fiscal year 1996.

The Department of Commerce's Economic Development Administration (EDA) is another important source of funding for rural public works and infrastructure projects, providing grants for a variety of public facilities such as water and sewer systems, industrial access roads, port and railroad facilities, schools, and business incubator facilities. Under the Omnibus Spending Act of 1996, the $194-million EDA public works grant program (fiscal year 1995) was cut by nearly $30 million.

Rural infrastructure should benefit from the 1996 farm legislation's authorization of $300 million for a new Fund for Rural America, which would make funds available for 3 years, beginning in January 1997. This money could be spent on housing, infrastructure, and other rural development research projects. The farm legislation also established the Rural Community Advancement Program to improve the coordination and effectiveness of USDA's community and business development programs in rural communities. This legislation also included an additional $10 million annually for rural community facilities.

The recently created North American Development Bank will help finance or facilitate financing of NAFTA- (North American Free Trade Agreement) related projects in Mexico and the United States. This should help affected rural areas finance environmental infrastructure projects and community economic adjustment projects. *[Dennis Brown, 202-219-0329, dennisb@econ.ag.gov]*

Federal Business Assistance Declines Modestly

As Federal dollars become scarcer, business assistance programs are increasingly more innovative. Direct loans are little used. Important program changes go beyond loan mechanisms such as loan guarantees. All program agencies have also implemented evaluation goals to improve the overall efficiency of program operations.

Many Federal programs provide technical and financial assistance for rural business development. These programs share the goal of providing needed capital to help rural communities create sustainable businesses in an increasingly global marketplace. Three agencies provide most of the business assistance programs: the Small Business Administration (SBA), U.S. Department of Agriculture (USDA), and the U.S. Department of Commerce (Commerce). USDA's programs serve a primarily nonmetro clientele, while programs administered by the SBA and Commerce are available to both metro and nonmetro clients.

SBA has 14 small business development programs, more than any other agency. SBA's Small Business Loan Guarantee Program is the largest program in terms of dollars obligated. USDA's seven programs fill important niches in rural America. Commerce administers several programs designed to improve the competitive and technological edge of U.S. companies, but most of their programs benefit larger businesses. Business assistance has evolved gradually to include more technical assistance, but the current emphasis remains on improving access to financial assistance.

Federal financial business assistance consists of direct loans, guaranteed loans, and grants (see appendix for definition of terms). Eligibility requirements tend to be similar across programs at both USDA and SBA. Both agencies require that an applicant be unable to obtain financing elsewhere and that they demonstrate the ability to repay. Guaranteed loans have increased in popularity since the early 1980's, and are typically made through commercial lenders.

Grant programs, such as Commerce's Economic Development Administration's (EDA) title IX, typically provide local governments and nonprofit institutions with seed money enabling them to finance local business development. Seed money is most often used to fund either technical (nonfinancial) assistance or a revolving loan fund (RLF). RLF's are designed to provide a sustainable supply of capital because, as the loans are repaid, the original capital plus interest earnings is available to finance new projects. RLF's also try to leverage private investment. Grant applicants usually must demonstrate that they are located in areas that are experiencing chronic high unemployment or a major economic dislocation. Grant recipients typically have broad discretion in establishing credit standards used to determine borrower eligibility.

Many small businesses need more than capital. Technical assistance programs provide financial and business management training. They also provide development planning and other strategic assistance, mostly through project grants that fund cooperative agreements.

Most Nonmetro Counties Receive Some Form of Business Assistance

Of 2,276 nonmetro counties, all but 414 received some form of business assistance in 1994 from either SBA, USDA, or Commerce (fig.1). Many of the counties that received no Federal business assistance are in areas with declining populations, such as the Plains. The assistance seems to be concentrated in rapidly growing areas, such as the Rockies, and in places adjusting to economic difficulties (the Northwest) or natural disasters (the flood plains of the Mississippi and Missouri Rivers). This picture may be somewhat misleading, though, as it mainly reflects the SBA's small business loan program, which is larger than all the other business assistance programs combined.

Metro counties typically received more business assistance in 1994 than did nonmetro counties (fig. 2). Some types of nonmetro counties, such as farming and service counties, came close to the metro county average. Manufacturing and mining counties lagged far behind.

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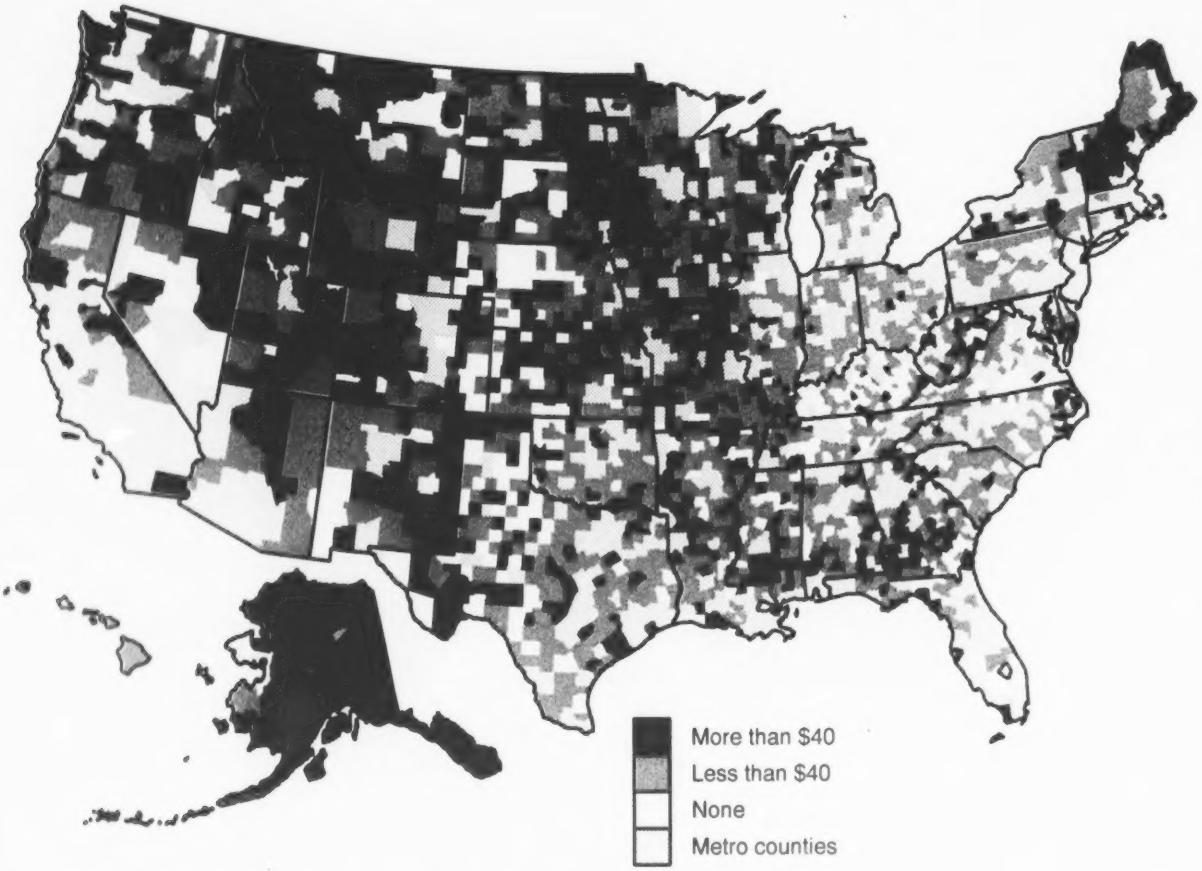
Figure 1

Per capita Federal nonmetro business assistance, fiscal year 1994

The counties not receiving assistance are in remote areas with little business activities



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

SBA's Business Assistance Programs Are the Largest

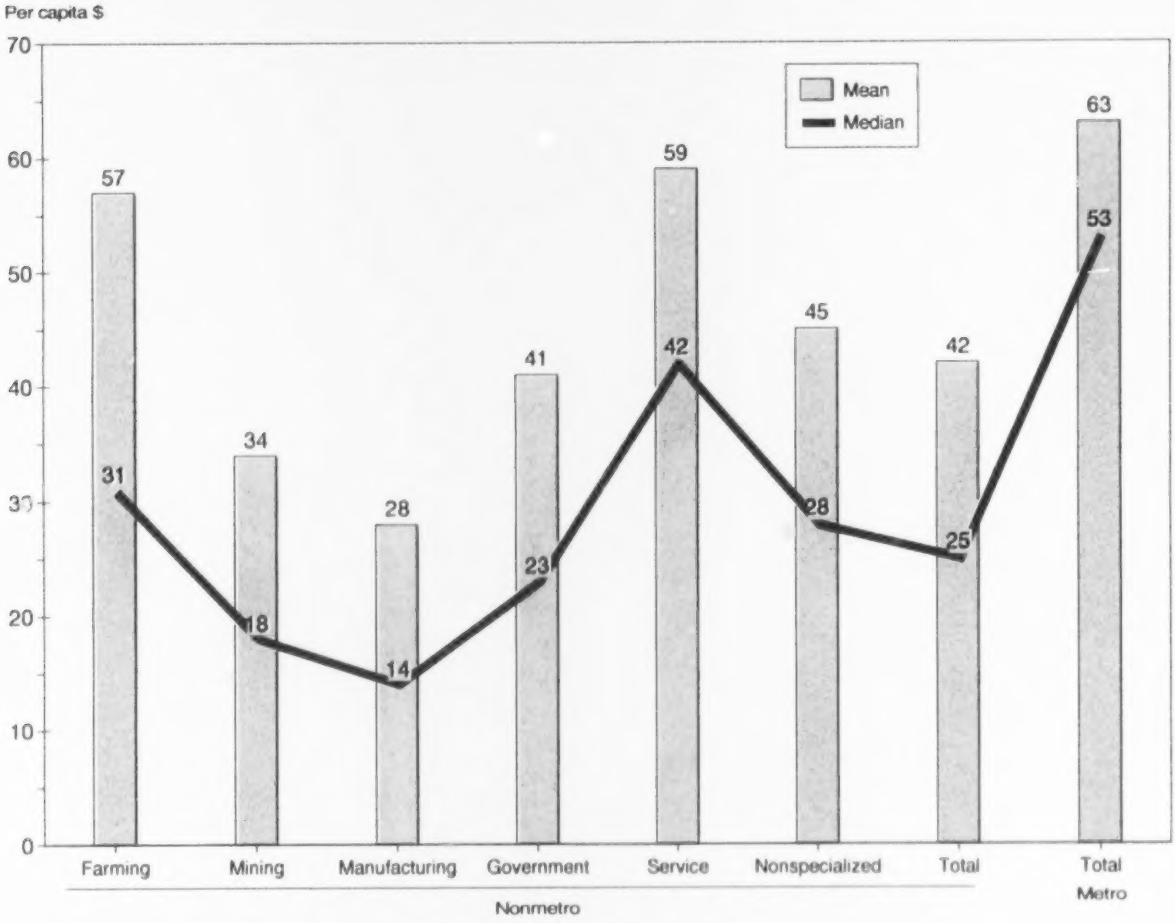
The small business loan guarantee program has shown impressive growth in recent years, increasing the number of loans it guarantees to 56,000, totaling about $8 billion by 1995. The Certified Development Company Program has shown similar growth. The program funding level for the Small Business Loan Guarantee Program increased about 40 percent for fiscal year 1996. Other SBA programs also experienced increases in fiscal year 1996. Some in Congress have proposed making considerable changes in SBA's programs. The Small Business Lending Enhancement Act of 1995 increased guarantee fees paid by participating banks to 3 percent. In addition, an annual fee was established that will be payable by the participating lender and not the borrower. Fees will also be assessed on loans that are sold into the secondary market. Although these changes could diminish private lender interest in the guaranteed loan program, they should reduce program budget costs.

Recently, SBA has been developing and using quantitative, measurable lending goals to improve program effectiveness. Programs are assessed by the number and amount of loans guaranteed, the rate of defaults and recoveries, and hard-to-measure goals, such as economic benefits to small businesses and their communities. SBA has adjusted its accounting for loan subsidies to reflect that losses had been higher than estimated.

Figure 2

Per capita business assistance by county type, 1994

Only farming and service counties received average per capita funding levels similar to urban areas



Note: The mean and median are calculated summing populations and business assistance dollars to arrive at the per capita measure.
Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

However, recent data suggest that the situation is improving. SBA is proposing several changes that will require legislative approval. Important proposals include changing the Certified Development Company Program into a direct loan program, increasing fees on the Small Business Investment Company Guarantees, and increasing the interest rate on disaster loans.

USDA Programs Serve a More Tightly Defined Group of Businesses

Since 1974, USDA's programs have provided more than 5,120 businesses with nearly $5 billion in loan guarantees, reportedly helping to create or save over 460,000 jobs. The Rural Business-Cooperative Service administers most of USDA's rural business assistance programs, including technical assistance and research for agricultural cooperatives. Business and Industry (B&I) loan guarantees provide protection against financial loss creating an incentive for private lenders to extend more credit to rural businesses. Other programs, such as the intermediary relending program, allow sponsors to borrow from USDA to make loans to businesses and other organizations for development purposes.

Fiscal year 1996 funding levels increased for the B&I loan program to slightly over $500 million. Under budget accounting rules, lower market interest rates have reduced the amount of interest-subsidy cost associated with the B&I program. This reduction in turn allows the actual amount of lending to be guaranteed to rise to just over $700 million.

The legislation enacted in 1996 authorizes two new programs. Rural Business Opportunity Grants, not to exceed $1.5 million annually, is to assist public bodies, private nonprofit community development corporations, and other entities. The program's purposes include identifying and analyzing business opportunities, providing technical training assistance, establishing business support centers, and coordinating regional, community, and local economic development planning. The new legislation also authorizes a Rural Venture Capital Demonstration Program. In each fiscal year, up to 10 community development venture capital organizations would be designated to demonstrate the value of loan guarantees in attracting private investment to rural businesses. This program would guarantee up to 30 percent of a venture capital organization's investment pool. Total guarantees are limited to $15 million per fiscal year.

Commerce Has Smallest Presence in Nonmetro Business Assistance Programs

Having repeatedly faced the threat of shutdown, Commerce's business assistance programs were funded through continuing resolutions most of fiscal year 1996. Funding has not changed significantly for its two technical assistance programs, but changes in measuring performance may enable Commerce to improve the assistance it provides. The majority of the Manufacturing Extension Partnership's and Advanced Technology Program's funding went to metro areas. Nonmetro counties may have a difficult time qualifying for these funds since these programs focus on the kinds of advanced technology industries that tend to concentrate in urban areas.

The Economic Development Administration's (EDA) economic development assistance programs are carried out through a network of regional headquarters. EDA provides grants for public works, capacity building, economic and defense adjustment, and other financial assistance to help reduce substantial and persistent unemployment in economically distressed areas. Economic adjustment grants help communities adjust to a gradual erosion or a sudden change in economic conditions. These grants are awarded to qualifying revolving loan funds that make business assistance loans on preferential terms. Grant funds are used to leverage private sector investment in local business development.

EDA funding declined from $465 million in fiscal year 1995 to just over $335 million in fiscal year 1996. By some measures, EDA grants leverage as many as $5 for every $1 of grant money. EDA claims that in fiscal year 1995 its programs were responsible for more than 2.8 million jobs being created or saved nationally through $1.9 billion in private sector capital, resulting from revolving loan fund activities loan assistance to over 7,000 businesses. *[George Wallace, 202-501-6751, gwallace@econ.ag.gov]*

Federal Business Assistance Comprises Many Programs

Financial Assistance Programs: These Federal programs support small business through credit access by making direct and guaranteed loans.[1] Programs are increasingly built around guaranteeing private sector lending.

U.S. Department of Agriculture

Intermediary Relending Program
Business and Industrial Loans
Rural Economic Development Loans

Small Business Administration

Economic Injury Disaster Loans
Loans for Small Businesses
Physical Disaster Loans
Small Business Investment Companies
Small Business Loans
Local Development Company Loans
Bond Guarantees for Surety Companies
Handicapped Assistance Loans
Veterans Loan Program
Certified Development Company Loans
Business Loans For 8(a) Program Participants

U.S. Department of Commerce

Economic Development Administration's Title IX Grants to start Revolving Loan Funds

Technical Assistance Programs: Provide Federal support to business by providing project grants to economic development entities. These programs are designed to convey necessary knowledge of business management, finance, and operation.

U.S. Department of Agriculture

Small Business Innovation Research
Rural Development Grants
Rural Technology Development Grants
Rural Economic Development Grants

Small Business Administration

Business Development Assistance to Small Business.
Minority Business Development (section 8(a) program)
Management and Technical Assistance for Socially Disadvantaged Businesses (Section 7(j))
Small Business Development Centers
Women's Business Ownership Assistance
Microloan Demonstration Program

U.S. Department of Commerce

Manufacturing Extension Partnership
Advanced Technology Program

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[1] Housing and Urban Development's Community Development Block Grant program is sometimes used to provide financial assistance to local businesses as well.

Federal Assistance for Rural Housing Shifts Toward Loan Guarantees

Only since 1995 have loan guarantees outnumbered direct loans in USDA's main housing program (section 502), which assists in the purchase of single-family homes. The future of this and other housing programs includes tighter operating budgets, greater flexibility in use of funds, and more State and local government involvement.

Federal housing programs share with many other government programs the movement toward less government involvement and reduced expenditures. Funding reductions for housing programs are being accommodated by cuts in administrative expenses, revision or elimination of programs, reduction of subsidy levels, a shift to loan guarantees, and more stringent eligibility requirements. These cutbacks could be important for rural development, since housing is increasingly being promoted as a tool for economic and community development. In addition to Federal agencies' activities discussed later, two government-sponsored enterprises (GSE's), the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac), are major players in home mortgage financing. (These GSE's and a recent initiative to increase their purchases of rural mortgages are discussed in the section on regulatory change.)

Fewer Rural Households Get Federal Housing Assistance

While a substantial minority of both rural and urban households benefit from Federal housing programs, rural households receive a smaller share. The 1993 American Housing Survey found that 17 percent of nonmetro and 25 percent of metro home mortgages were either from or insured by a Federal Government agency (fig. 1).

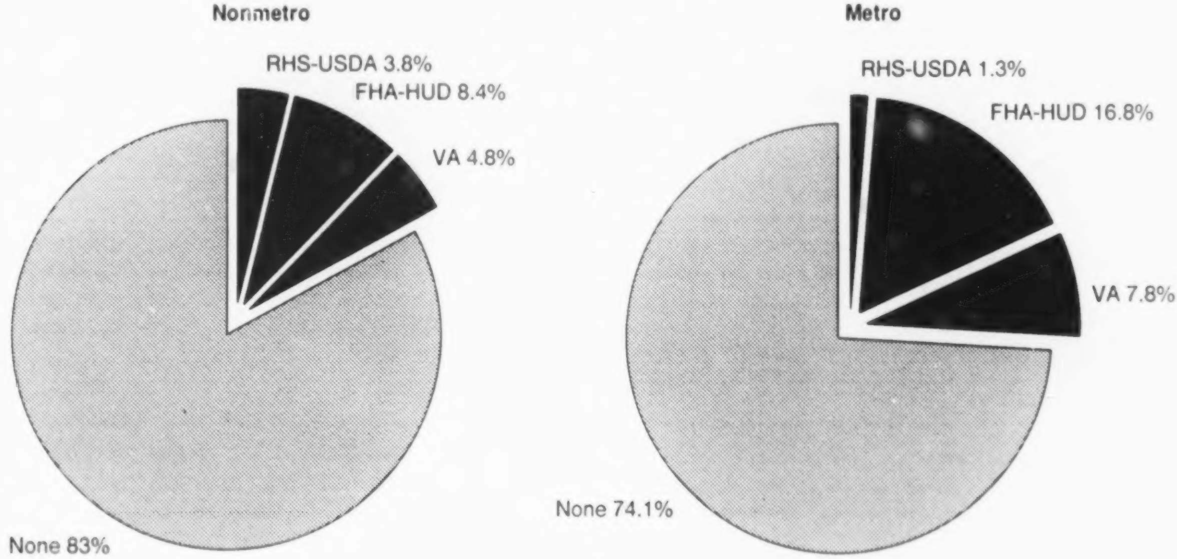
Federal programs emphasize homeownership, primarily using guaranteed/insured loans from private lenders rather than direct loans. Although direct lending under USDA section 502 is still larger than any other direct Federal mortgage lending program, and its level is still substantial, a majority of section 502's new activity comes from loan guarantees.

Other major Federal mortgage programs provide even more loan guarantees in nonmetro areas than USDA's section 502 program, which is targeted at persons with no more than moderate incomes for the purchase of modest housing. For example, in fiscal year 1994 section 502-guarantee activity averaged under $7 per nonmetro person, compared with

Figure 1

Federal agencies and home mortgage lending, 1993

Smaller share of rural lending is Federally insured or direct



Source: ERS tabulations from American Housing Survey for the United States, 1993.

$94 for single-family home loans insured by the Federal Housing Administration (FHA). Rural loans insured by the Department of Veterans Affairs (VA) were $35 per capita. These rural per capita amounts were only one-fourth of the urban level for FHA loans and half of the urban level for VA loans.

The amount of subsidy for new mortgage lending has dropped with the decline in direct loans, which usually employ such subsidy tools as reduced transaction charges, below-market interest rates, and relaxed lending standards, including smaller downpayment requirements. The subsidy costs of direct loans have also been lowered through lending at higher interest rates, recapturing prior subsidies, and charging lending fees.

While on a per capita basis urban areas receive more Federal funds for rental housing than do rural areas, the difference is much less for homeowner programs. In fiscal year 1994, the largest programs for rental housing provided about $96 per capita in urban and $68 per capita in rural areas. While owner programs have a clientele base across a broad income spectrum, renter programs are almost exclusively focused on the low-income population. Renter programs operate by either subsidizing rents for those unable to afford adequate housing or by promoting an increased supply of low-cost rental housing. Both approaches can be found in a single program, for instance when construction or financing costs are subsidized in return for an agreement that units be rented to program participants at reduced rates. Federal housing subsidies that are tied to particular rental units for a long period of time are being slowly replaced with more flexible tenant assistance. Programs are placing more emphasis on housing vouchers, local control, and homeownership.

USDA Emphasis Is on Home Ownership

USDA's housing programs are administered by the Rural Housing Service (RHS), which was created out of the Farmers Home Administration in a 1994 departmental reorganization. RHS housing programs provide assistance to rural populations in both nonmetro and metro counties. The largest RHS housing program is section 502 single-family housing, which constitutes about three-fourths of the agency's housing loan activity. New RHS lending in fiscal year 1994 split about equally between purchasers of rural homes in nonmetro (49 percent) and metro (51 percent) areas. Nonmetro counties with higher per capita levels of these loans were concentrated in New England, parts of the Mountain West, and scattered across the Midwest and Southeast (fig. 2). The section 502 program has experienced considerable change in the last 2 years. More new loans are now made under a section 502 loan guarantee authority, initiated in 1992. USDA section 502 direct lending for fiscal year 1996 will be $410 million, about 40 percent below that of 1994. However, section 502 lending will be higher in 1996 than 1995, with increases in both direct and guaranteed lending. Section 502 guaranteed lending is expected to be $680 million in fiscal year 1996, up 53 percent from a year earlier. For various reasons, through fiscal year 1995, subsidies provided to section 502 borrowers fell annually for several years. Direct loans are nearly all made at subsidized interest rates, while all guaranteed loans are at market rates. Total subsidy expenses on new loans fell not only from the smaller number of loans carrying an interest subsidy, but also from declines in market interest rates and changes in program regulations that generally lowered subsidy levels. The fiscal year 1996 combination of increased direct lending and higher conventional interest rates probably reversed this trend, with section 502's subsidy expense above its fiscal year 1995 level. A major change planned for fiscal year 1998 aims to save on costs, mostly by lowering administrative expenses.

The RHS administers other housing programs for the same rural areas eligible for the section 502 program. The largest of these activities involve financing for the construction or purchase of low-income rental housing and rental assistance for low-income tenants. Nonmetro areas received about $12 per person through these rental programs in fiscal year 1994, compared with $21 for section 502. RHS's total loan and grant activity for fiscal year 1996 is estimated to be 77 percent section 502, 20 percent rental programs, and

3 percent for other programs. Included in the last group are such activities as self-help housing, farm-labor housing, and very-low-income housing repair.

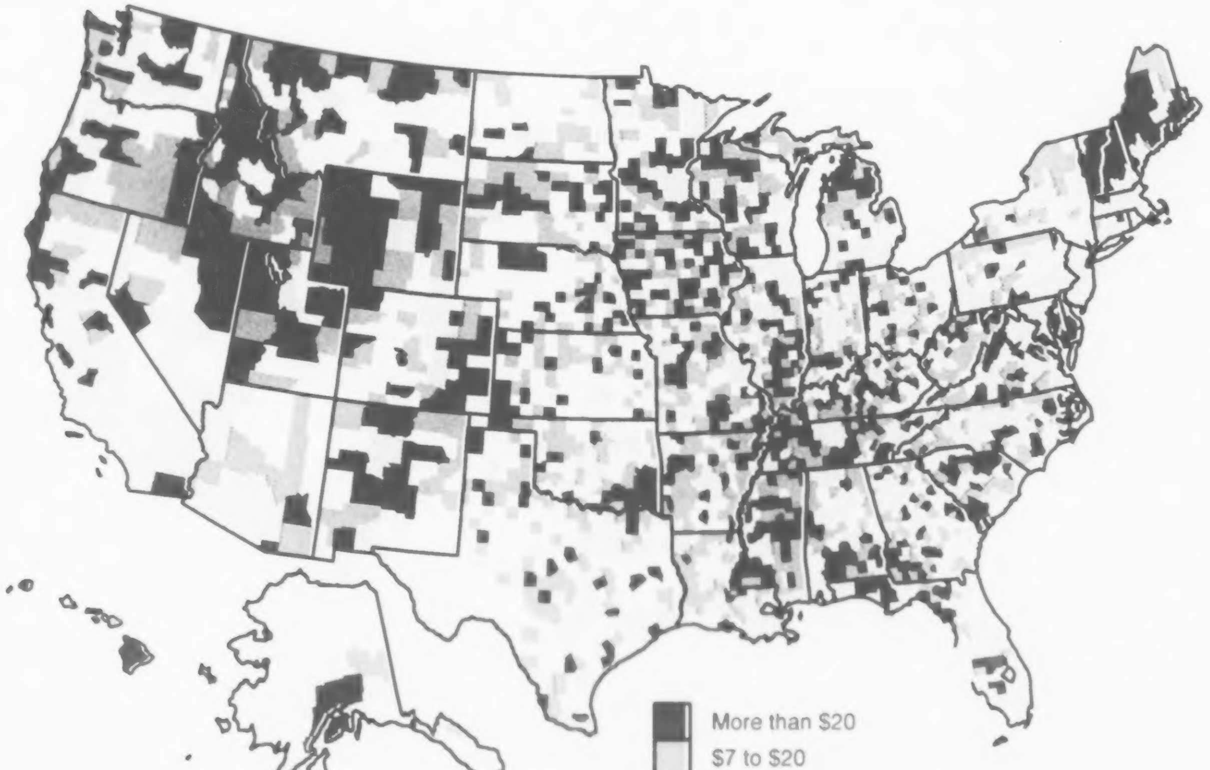
FHA Insurance Dominates HUD Housing Programs

HUD's main housing program is FHA's home mortgage insurance program, which provided $48.5 billion of mortgage insurance in fiscal year 1995. About 5 percent of the amount insured in fiscal year 1994 was in nonmetro areas. On a per capita basis, nonmetro residents received only about one-fourth as much as did metro residents. The largest housing program financed by direct outlays or grants was HUD's $17.5-billion section 8 low-income housing assistance program, of which rural areas received 13 percent. This program is undergoing substantial change as HUD's housing strategy moves away from long-term financing commitments. The next largest housing expenditure in fiscal year 1995 was HUD's $3.7-billion public housing capital fund, with a rural share of 17 percent. Per capita expenditures of this program were only slightly lower in nonmetro than metro areas, $13 and $15, respectively. The highest per capita levels of nonmetro activity were in the South and Southeast (fig. 3).

Figure 2

Per capita USDA nonmetro single-family housing loans, fiscal year 1994

USDA home ownership programs are more important in scattered rural counties of the Midwest and Southeast, with concentrations in New England and the Mountain West



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

The future of HUD and its programs has not been determined as of this date, but major changes are in the works. Programs in the future HUD seem destined to be many fewer in number and much more flexible in how they are used. State and local governments will have much more control over what will likely be a reduced level of funding.

VA Loan Programs

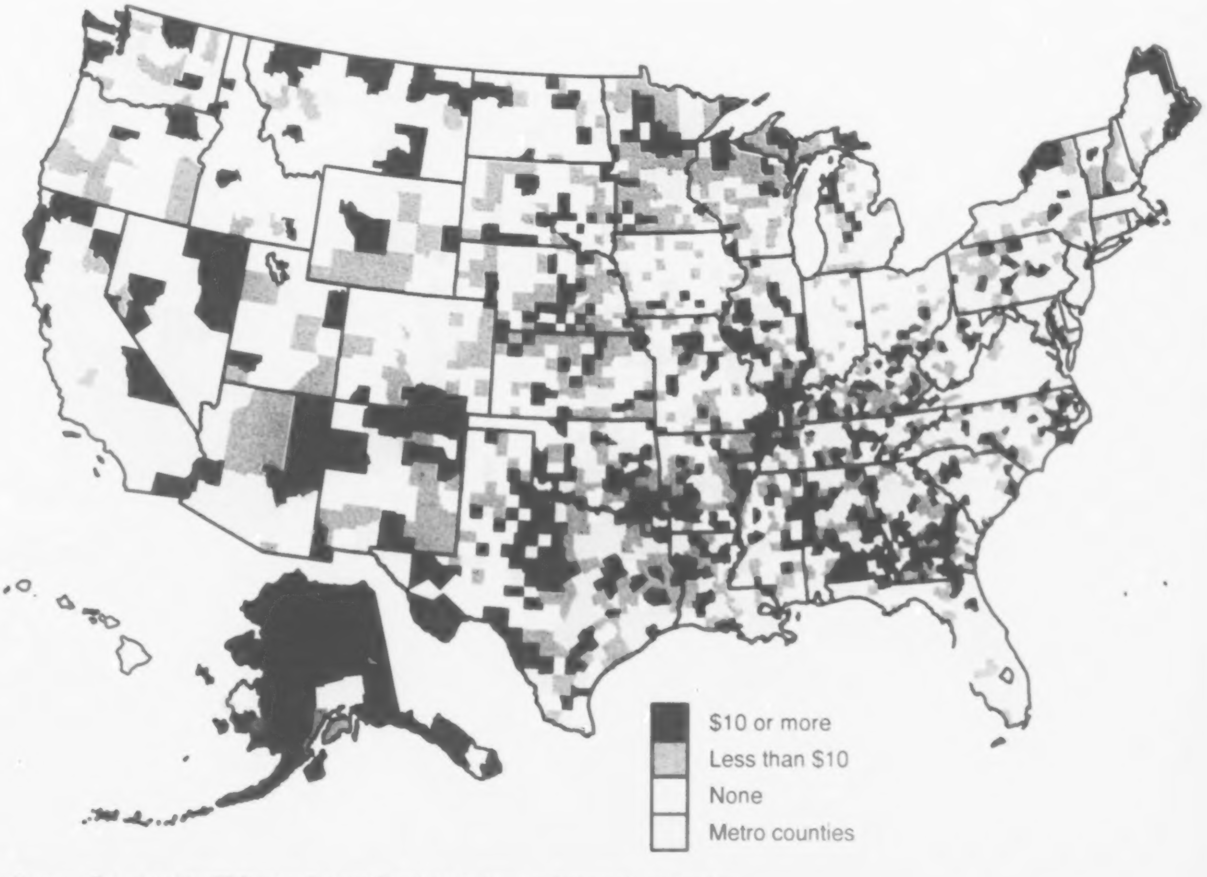
VA housing loans are expected to total about $33 billion in fiscal year 1996, up $4 billion from 1995, but more than $12 billion below the 1994 level. About 10 percent of VA's housing program activity is in nonmetro areas. Nearly all of that is in the form of guarantees on loans from private lenders. These guarantees cover loan losses that may be as much as 50 percent, but sometimes less than 25 percent, of the loan amount.

At one time, the typical VA loan was available with no fee to the borrower, but now borrowers usually pay a fee that is a percentage of the loan amount. Fees are higher for certain loans, including those with smaller down payments. Some special borrowers can receive the loan guarantee at no cost. In the past, VA regulations targeted direct loans to "rural areas where availability of private mortgage funds was limited." This is no longer true. Direct loans are now restricted to financing specially adapted housing assistance for certain disabled veterans. *[Jim Mikesell, 202-219-0098, mikesell@econ.ag.gov]*

Figure 3

Per capita funding for nonmetro public housing, fiscal year 1994

Public housing expenditures are more important for rural counties in the South and Southeast plus areas with Native American concentrations



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Natural Resource and Environmental Programs Undergo Historic Changes

Regulatory reform, spending cuts, fee increases, program termination, and personnel reductions characterized the budget process for Federal natural resource and environmental programs for fiscal year 1996.

Natural resource and environmental programs are particularly important both to rural communities that depend on natural resource-based industries for employment and income and to people in urban areas who look to rural areas as a source of recreation and as a retirement destination. The Federal Government administers laws and provides funding for a broad range of programs pertaining to natural resources and the environment. Among the most important programs are soil conservation and forest management programs at USDA; fisheries and coastal zone management programs at Commerce; minerals management, water reclamation, wildlife restoration, and park maintenance at Interior; air, water, and land pollution abatement, control, and compliance at the Environmental Protection Agency; ordinance disposal at the Department of Defense; nuclear waste cleanup at Energy; and lead poisoning prevention at Health and Human Services.

Budget authority for natural resource and environmental programs is estimated at $20.7 billion for fiscal year 1996, a 2-percent decline from the previous year. Pollution control and abatement account for nearly a third of this total, followed by resource conservation and land management programs, with almost a quarter of the total (fig. 1).

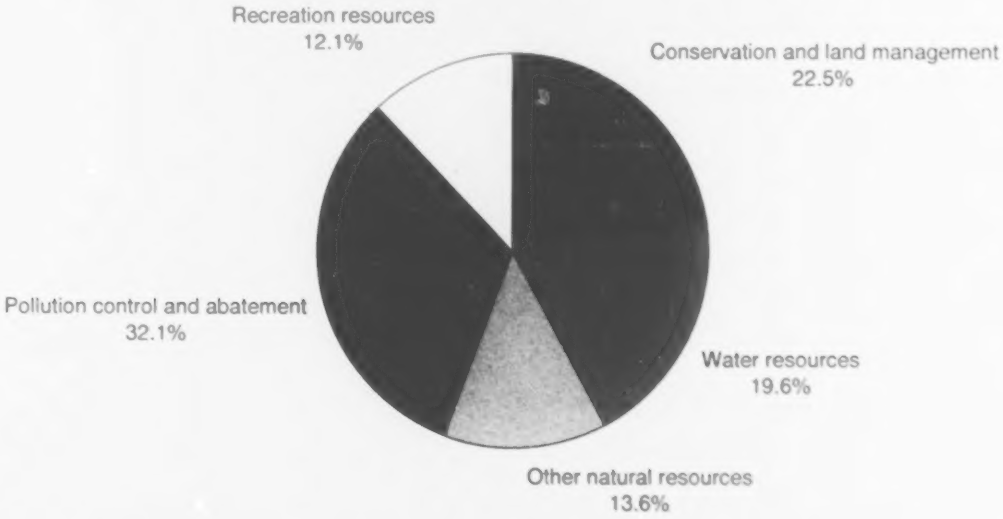
During 1995, the administration and Congress proposed many reforms of natural resource and environmental programs along with the agencies that administer them. (Some of these are discussed in the regulatory section of this issue.) Expiration of funding authorization for a number of key natural resource and environmental programs created hardships in some places. With pressure to reduce the Federal deficit, there have been proposals to raise revenues by charging higher fees or creating new fees for grazing on public lands, using national parks and extracting minerals from Federal lands.

The budget impasse between Congress and the President shut down most of Interior and other natural resource agencies for 6 days beginning November 14, 1995, and for 21 days beginning December 16, 1995. This closed nearly all of the national parks, monu-

Figure 1

Federal budget authority, natural resources and environment, fiscal year 1996

Pollution control and abatement account for one-third of the total budget of $20.7 billion



Source: Budget of the United States Government, Fiscal Year 1997, Historical Tables, Table 5.1, March 18, 1996, pp. 77-78.

ments, wildlife refuges, national forests, and other sites managed by the Federal Government. Business activity dropped sharply during the shutdowns for private companies and individuals, including food and lodging providers, tour operators, importers of pesticides, recreational equipment suppliers, gift shop owners, and others adjacent to Federal facilities. The lost business activity was particularly injurious in the South where warmer climates attract more winter visitors.

The President vetoed the appropriations bills for both Interior and the Environmental Protection Agency in mid-December 1995 because of the reduced funding levels sought by Congress. Consequently, these agencies operated until late April 1996 at reduced funding levels set by a series of stopgap spending bills (continuing resolutions). These reductions had a number of consequences for Federal personnel and programs, including early retirements, hiring freezes, threats of layoffs, curbs on environmental enforcement, delayed Government reports, slower payments to States and Indian tribes, moratoriums on listing of endangered species, and the closing of some research centers.

On April 26, 1996, the day after Congressional approval, President Clinton signed the omnibus fiscal year 1996 appropriations bill (P.L. 104-134) which provided funding for the remainder of the fiscal year for those agencies operating on temporary spending bills. The bill terminated the National Biological Service and the Bureau of Mines at Interior, although some of their functions were transferred to other agencies. Funding for natural resource programs at Interior were reduced nearly 4 percent on average from fiscal year 1995 levels.

Natural Resource Programs Adjust to New Budget Realities

Agricultural resources conservation funds rise 3 percent. Most Federal agricultural soil and water conservation funding comes from USDA's Conservation Reserve Program (CRP), which pays farmers to remove environmentally sensitive land from production. (CRP is discussed in the agriculture section of this issue). Other USDA programs include watershed protection, flood prevention, and wetlands protection and restoration on private lands. The Natural Resources Conservation Service (NRCS) administers these programs through a nationwide network of conservation specialists who work through some 3,000 locally organized and locally run conservation districts to help individual land users and rural and urban communities. Total appropriations for the NRCS increased 3 percent in fiscal year 1996 to $859 million. However, the Resource Conservation and Development Program, which provides local coordination of resource programs, decreased 12 percent to $29 million in fiscal year 1996. With the passage of the Federal Agriculture Improvement and Reform Act of 1996, NRCS was designated the lead agency in administering the Environmental Quality Incentives Program (EQIP), a new program which combines the functions of the Agricultural Conservation Program, Water Quality Incentives Program, Great Plains Conservation Program, and the Colorado River Basin Salinity Control Program. EQIP is funded at $130 million in fiscal year 1996 and $200 million annually thereafter.

Forestry programs challenged. USDA's Forest Service manages 191 million acres of public land (the National Forest System) in 44 States, Puerto Rico, and the Virgin Islands for sustained production of timber, forage, minerals, fish, wildlife, water, wilderness, and outdoor recreation. Alaska contains more national forest land than any other State, with around 22 million acres, followed closely by California and Idaho, each with around 21 million acres. The Forest Service also provides financial and technical assistance to protect private forest lands and natural resource-dependent rural communities, particularly those located in or near national forests that have become economically stressed due to public land management practices or policies. In addition, the Agency's Forest and Rangeland Research organization carries out research projects that help integrate social, economic, and biological factors to ensure sustainability of natural resources while meeting people's needs, including the needs of rural communities. To carry out the incremental costs of the Northwest Forest Plan, the Forest Service provided $96 million in funding in fiscal year 1996 for those areas within the range of the northern spotted owl, a $1-million increase over the previous year's level. Of this amount, $29.5 million was allocated for technical and economic assistance to communities affected by reduced Federal timber supplies.

Total spending for the Forest Service for fiscal year 1996 was set at $3.36 billion, about 8 percent above fiscal year 1995 spending levels. Increased funding for disaster and emergency programs offset significant cuts in other Forest Service activities (8 percent on average) including forest research, State and private forestry, the National Forest System, and land acquisition. While Forest Service programs are administered by the USDA, the budget for these programs is set along with Interior appropriations. As a result, the Forest Service was forced to shut down all nonessential operations from December 18, 1995, to January 6, 1996, during the budget impasse over funding for Interior and related agencies. Major forest issues that prolonged the budget debate included timber harvesting in Alaska's Tongass National Forest, the Columbia River Basin Assessment, and environmental issues related to the salvage provision in the 1995 Rescissions Act (for example, nesting of the Marbled Murrelet).

Fish and wildlife funds cut 3 percent; National Biological Service terminated. Interior's Fish and Wildlife Service manages 505 national wildlife refuges, 72 fish hatcheries, and 32 wetland management districts, with waterfowl production areas in 180 counties, encompassing more than 92 million acres (87 percent in Alaska, 3 percent in Nevada). Because of the budget impasse between Congress and the President, the Fish and Wildlife Service operated at reduced funding for much of fiscal year 1996. Final appropriations were approved on April 26, 1996 at $654 million, nearly 3 percent below fiscal year 1995 appropriations.

Resource management accounts for about three-fourths of spending and includes habitat management and maintenance in the wildlife refuge system, public use and recreational programs, the fish hatchery system, and other programs such as the endangered species program. Land acquisition projects, which protect endangered species and habitat on refuges, and the Cooperative Endangered Species Fund, which protects species from economic development pressures, also faced funding cuts in fiscal year 1996.

The National Biological Service, an Interior Department agency established in 1993 to provide scientific information and technologies to support conservation of the Nation's biological resources, was terminated in 1996 with some of its functions transferred to the U.S. Geological Survey. The National Biological Service had a budget of $162 million in fiscal year 1995.

Mining and minerals programs consolidated. Interior's mining and minerals programs enforce safety and environmental regulations; assure reclamation of old mines; research mine safety and pollution; manage the Nation's energy and mineral resources; collect revenues from mineral leases on Federal and Indian lands; and disseminate information about mining, processing, and mineral commodities.

Budget authority for mining and minerals programs for fiscal year 1996 dropped 16 percent to $591 million. The Bureau of Mines has shut down (about 1,200 layoffs) with some of its programs transferred to the Geological Survey and to the Department of Energy. Of particular note to rural areas is a moratorium through the end of fiscal year 1996 on land patents under the 1872 General Mining Law and the elimination of the rural abandoned mine reclamation program which was funded at $7.9 million in fiscal year 1995.

Water resource programs shift away from big dam construction. These programs develop, manage, and protect water and associated resources that benefit agricultural, municipal, industrial, and domestic users through flood control, recreation, and fish and wildlife projects. The Army Corps of Engineers, which is responsible for many of the Nation's projects on flood control, navigation, and shore protection, accounts for about 75 percent of Federal outlays for water resource programs with most of the remainder divided between Interior (20 percent) and USDA (2 percent).

Water resource programs initially received $4.11 billion in budget authority for fiscal year 1996, about 3 percent less than 1995 spending levels. However supplemental appropriations during the year to deal with floods raised the total to $4.36 billion, or nearly 3 percent over 1995 appropriations. In recent years, there has been a shift away from large dam projects toward smaller construction projects and water resource management (conservation, reclamation, environmental protection, and restoration). The Army Corps of Engineers received a net increase of nearly 1 percent after an initial cut of 4 percent in fiscal year 1996 as a result of a $165-million emergency supplemental appropriations for flood control. The Interior Department's Bureau of Reclamation, which supplies water to 28 million people in 17 Western States, received 2 percent less funds in fiscal 1996, mostly due to cuts in construction spending. Water resource projects administered by USDA's Natural Resources Conservation Service received $114 million in funding for fiscal year 1996, a 22-percent increase from fiscal 1995 funding but nearly $83 million below 1994's level. This does not include the $81-million natural disaster supplement appropriation in 1996 for emergency measures in watersheds for protection against flooding, erosion, or sedimentation damage. Efforts in watershed surveys and planning were cut by more than half to $14 million for fiscal year 1996 and $12.4 million for 1997.

Protests over parks shutdown helps restore some funding. Interior's National Park Service (NPS) manages 369 parks, comprising 76.6 million acres in 49 States, the District of Columbia, and U.S. territories. Alaska accounts for the bulk of land managed by the NPS with about 68 percent of the total, followed by California with about 6 percent. NPS sites received 273 million visits in fiscal year 1995 and 279 million visits are expected in 1996.

Like the other Interior agencies, NPS operated under a continuing resolution through much of fiscal year 1996 because of the budget impasse between Congress and the President. Total funding for fiscal year 1996 was finally set at $1.36 billion, down 1.7 percent. However, strong public protest over the closing of the National Parks for 27 days between November 14, 1995, and January 6, 1996, resulted in Congress providing a small increase in funding for visitor services for the remainder of the year (0.5 percent over fiscal year 1995).

Federal Grants to State and Local Governments Stagnate

Federal grants to State and local governments for natural resource and environmental programs are estimated at $4.0 billion in fiscal year 1996, 3 percent less than in fiscal year 1995. About 70 percent of these grants are from the Environmental Protection Agency, 20 percent from Interior, and 8 percent from USDA (excluding the Conservation Reserve Program). Federal grants for natural resource and environmental programs rose sharply throughout the 1970's and peaked at $5.4 billion in 1980 (fig. 2). Since then, grants have declined 25 percent in current dollars and 58 percent in constant fiscal year 1987 dollars. Most of the decline occurred in water infrastructure outlays provided by the Environmental Protection Agency, reflecting the completing of some construction projects and an increased reliance on loan revolving funds. During this same period, grants by USDA (mainly watershed, flood prevention, and forestry programs) rose sharply while grants by Interior (mainly fish, wildlife, mines, and minerals programs) increased moderately in nominal terms but declined slightly in 1987 dollars.

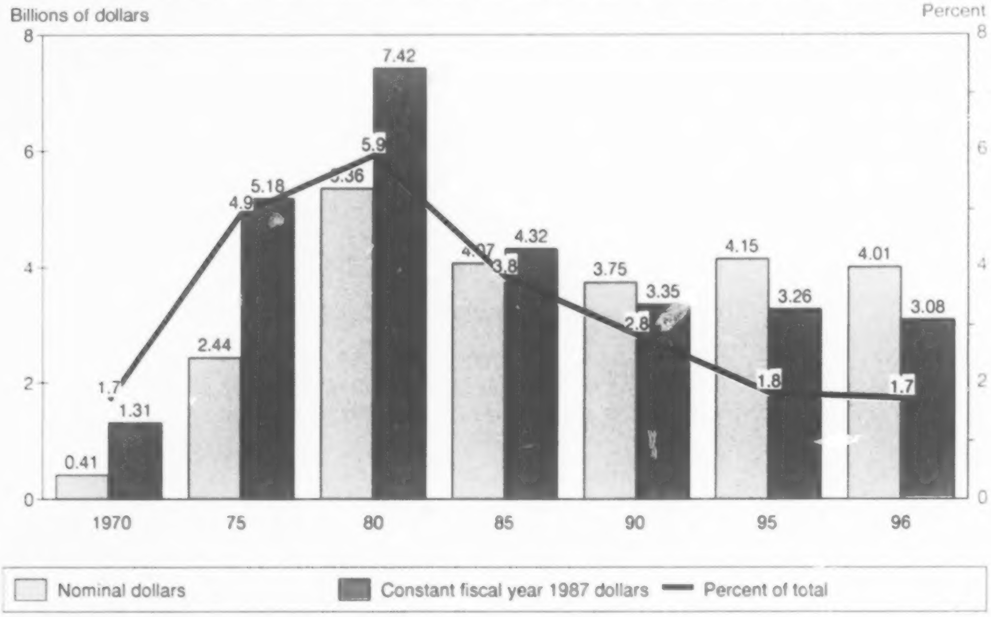
Of the $1.16 billion transferred to States for natural resource programs in fiscal year 1994, fish and wildlife conservation accounted for over 30 percent of the total followed by mining with nearly 20 percent, agricultural resource conservation and water resources each with about 16 percent, forestry with about 8 percent, and parks and recreation with about 3 percent (fig. 3). The top three States receiving Federal grants for natural resource programs were:

- Total grants basis: West Virginia ($87.5 million), California ($71.7 million), and Texas ($55.7 million);

Figure 2

Federal outlays for grants to State and local governments, natural resources and environment programs

These programs were down 58 percent in constant dollars since 1980 and from 6 to 2 percent as a share of total Federal grants

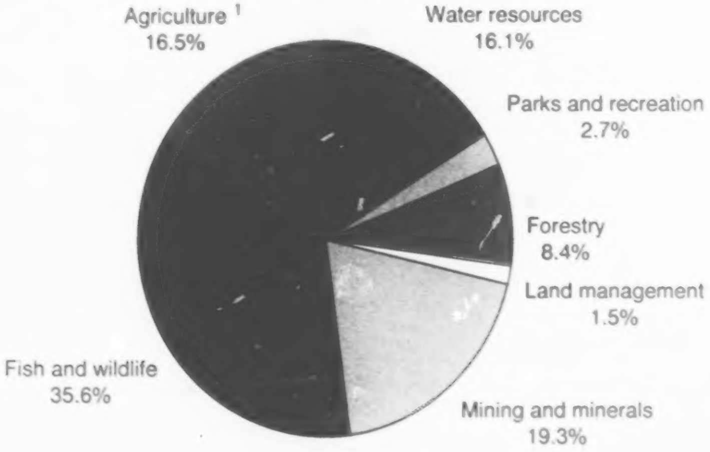


Source: Budget of the United States Government, Fiscal Year 1997, Historical Tables, Table12.2, March 18,1996, pp. 196-200.

Figure 3

Federal outlays for grants to State and local governments, natural resources programs, fiscal year 1994

Fish and wildlife programs account for 36 percent of total grants of $1.16 billion



[1] Excludes funds for the Conservation Reserve Program.

Source: U.S. Census, Federal Funds database, fiscal 1994.

- Per capita basis: Wyoming ($70.50), North Dakota ($49.65), and West Virginia ($48.00);
- Per acre basis: West Virginia ($5.67), Rhode Island ($5.11), Delaware ($2.86).

The Mountain and Plains States tended to have the largest per capita grants for natural resources programs along with West Virginia and Alaska, while the lowest tended to be on the eastern seaboard and in California (fig. 4).

Federal grants were concentrated in fish/wildlife, water, and recreational programs for all but nine States. For these States, forest, mining, and public land management programs dominated, especially for Kentucky, Wyoming, Pennsylvania, Virginia, and West Virginia. Grants for agricultural conservation programs (excluding the CRP) were an important source of funds for Nebraska, Maine, Missouri, Texas, and Kansas. *[Walter H. Gardiner, 202-219-0545, gardiner@econ.ag.gov]*

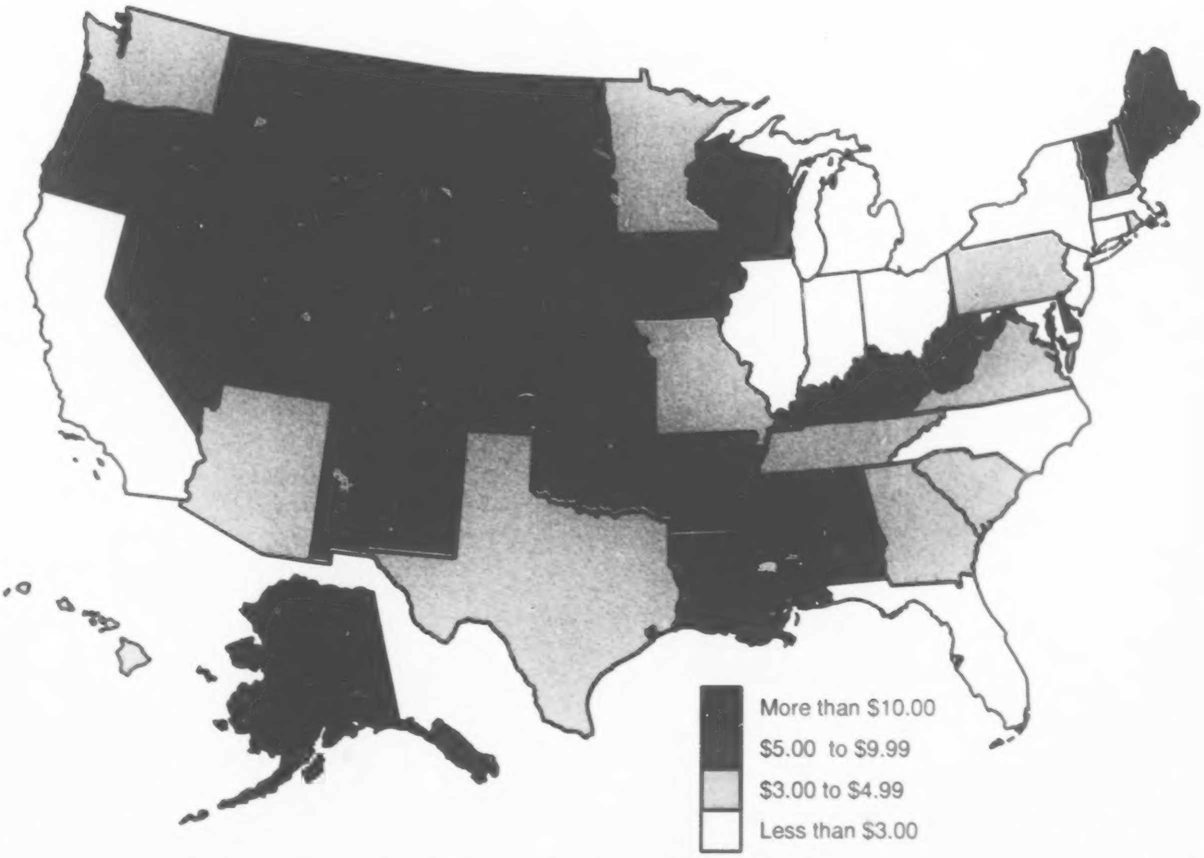
Environmental Protection Agency Survives Large Proposed Cuts

Most of the major environmental programs are within the Environmental Protection Agency (EPA). EPA programs include operating programs (such as air, water, and hazardous wastes), Water Infrastructure, Superfund, and the Leaking Underground Storage

Figure 4

Federal grants to States for natural resource programs, dollars per capita, fiscal year 1994

Largest per capita grants are concentrated in North Central and Mountain regions



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Tank Trust Fund. EPA's fiscal year 1996 budget authority is $6.5 billion, down $706 million (10 percent) from fiscal year 1995 estimates. Cutbacks were led by reduced funding for Water Infrastructure and the Superfund while operating programs received a slight increase in funds. Operating programs constitute 46 percent of EPA's 1996 budget, followed by Water Infrastructure (33 percent), Superfund (20 percent), and the Leaking Underground Storage Tank Trust Fund (1 percent) (fig. 5). Except for shutdowns during temporary funding gaps, EPA operated through April 1996 under continuing resolutions in the absence of an approved appropriations bill. This led to delays in funding EPA's Superfund cleanup activities and pollution inspections and also delayed transfers of funds to States for safe drinking water programs.

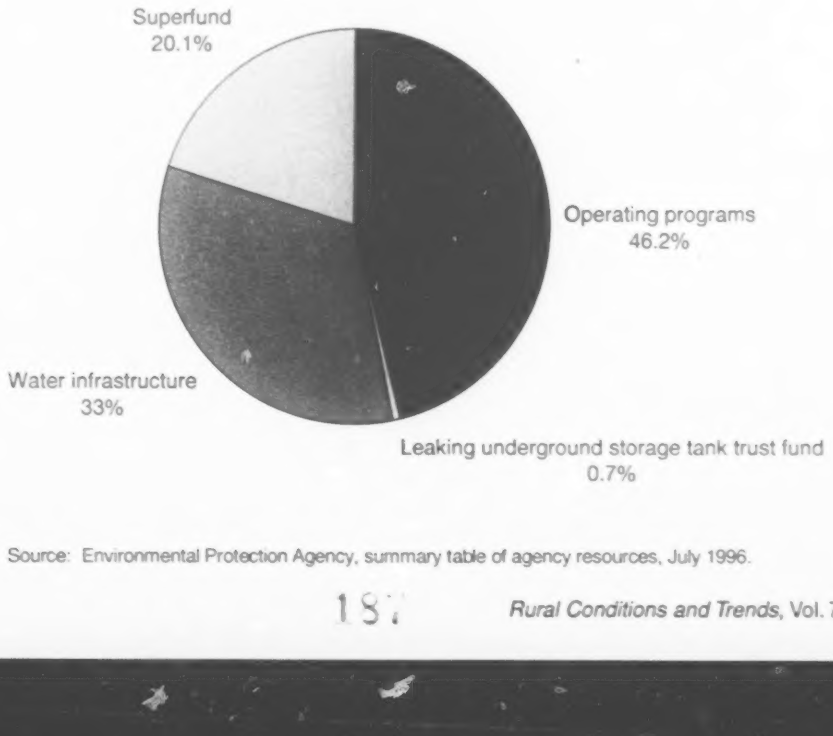
Air and water programs major focus of operating programs funding. A large part of EPA's funding is channeled through the water infrastructure programs (discussed in the infrastructure section of this issue) and dedicated to maintaining a clean, safe water supply. Other water programs include the Water Quality Program and the Drinking Water Program. The Water Quality Program has evolved from focusing on source problems of discharges from industrial and municipal facilities to a wider scope that includes nonpoint-source pollution problems such as wet weather runoff from farms, streets, lawns, and construction sites. The water quality operating program was trimmed $23.1 million (4.4 percent) to $499.3 million. The Drinking Water Program ensures that public water supplies are free of contamination that may pose unacceptable human health risks, and protects ground water resources. The Drinking Water Program was expanded $12.5 million (7.5 percent) to $178.1 million. EPA's air programs, responsible for implementing the Clean Air Act, were cut $28 million (5 percent) to $536.5 million. Multimedia funding was boosted $13.9 million (3 percent) to $456.8 million. Management and support was bolstered $49.1 million (7 percent) to $715.9 million, including over $100 million for EPA's buildings and facilities account.

Superfund and underground storage tank funds take cuts. The Hazardous Substance Response Trust Fund, known as the Superfund, pays for the cleanup of haz-

Figure 5

Environmental Protection Agency funding set at $6.5 billion for fiscal year 1996

Operating programs account for 46 percent of total



Source: Environmental Protection Agency, summary table of agency resources, July 1996.

ardous waste sites. Funding comes mainly from taxes on the chemical and petroleum industries and a corporate environmental tax. About 40 percent of the 620 Superfund sites are in nonmetro counties. The government shutdown and delays in passing EPA's budget led to a delay in starting Superfund cleanup activities for 1996. Superfund funding for fiscal year 1996 was trimmed nearly $121 million to $1.3 billion, down over 8 percent from fiscal year 1995 (based on the fiscal year 1995 operating plan prior to the $100 million rescission).

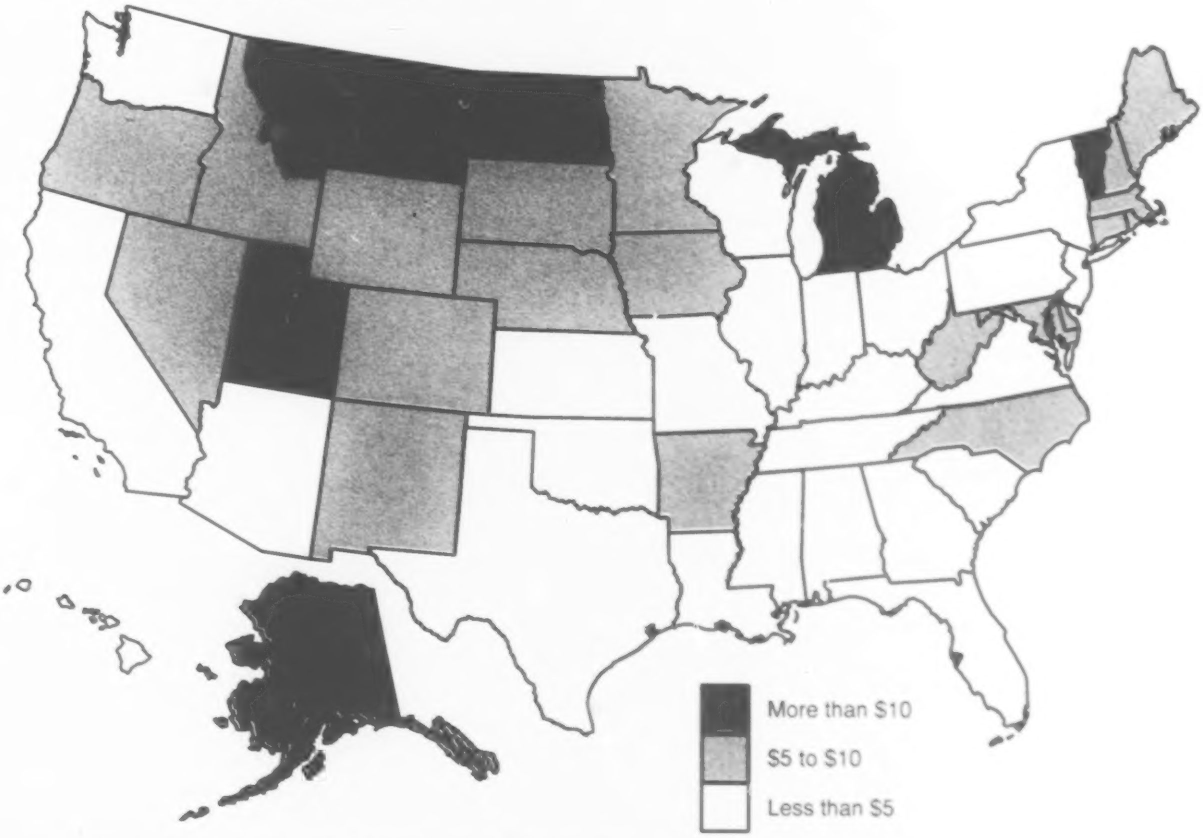
EPA's Leaking Underground Storage Tank program helps States oversee the large number of active cleanups of leaking underground storage tanks containing petroleum. This program was cut to $45.8 million, down 35 percent from fiscal year 1995.

Fewer funds for State, local and tribal environmental programs. While EPA's overall operating programs budget increased 1.4 percent to $3.0 billion in fiscal year 1996, State, local, and tribal grants for operating programs were trimmed relatively flat with a slight increase to $658 million. To increase flexibility within Federal fiscal constraints, EPA has established Performance Partnership Grants that allow State, local, and tribal governments to target their resources on their most pressing environmental problems. EPA is working with States and tribes to develop the terms of these new grants, which replace

Figure 6

Environmental protection per capita, fiscal year 1994

Per capita Federal grants to State and local governments for environmental protection frequently are larger in low-population States



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

multiple environmental grants with consolidated grants. The Water Quality Program for State, local, and tribal grants is funded at $214.9 million, down 1 percent from fiscal year 1995. The lower funding includes a reduction in water quality research. However, several grants in the water quality media are eligible to be consolidated with other grants into performance partnership grants, which States and tribes are encouraged to request. Drinking water funds available for State, local, and tribal grants were increased to $82.2 million, up 3 percent from fiscal year 1995.

EPA's air grant programs to implement the Clean Air Act and reduce greenhouse gas emissions were cut almost 4 percent to $173.6 million in fiscal year 1996. However, States will now be able to collect operating permit fees from major stationary sources of air pollution to fund some previous grant-funded programs. The Hazardous Waste program, which was increased almost 1 percent to $106.7 million, addresses prevention, management, and disposal of hazardous and municipal solid wastes. Multimedia programs (pollution prevention, pesticides enforcement, toxic substances enforcement, and general assistance to tribes) was increased $9 million (25 percent) to $44.9 million.

More than half of EPA's total budget is transferred directly to State, local, or tribal governments, and other partners. States with relatively high per capita funding tend to be low-population States. In fiscal year 1994, four of the seven States receiving per capita funding over $10 (Vermont, North Dakota, Alaska, and Montana) had populations below 1 million and were classified as rural and small town States. Michigan, Utah, and the District of Columbia also received more than $10 per capita (fig. 6). *[Cecil W. Davison, 202-501-6716, cdavison@econ.ag.gov]*

Uncertainties in Federal Funding Situation Cause Problems for Rural Education and Training Programs

Education and training programs were funded by a series of continuing resolutions until April 26, 1996, when President Clinton signed the omnibus fiscal year 1996 appropriations legislation. The continuing resolutions specified large budget cuts for many of these programs and made it difficult for local administrators to plan and budget. The omnibus fiscal year 1996 appropriations bill restored funding for most education programs to 1995 levels or made smaller cuts than were specified in the continuing resolutions. However, most training and employment programs were cut significantly in the final 1996 budget from their 1995 levels.

Until April 26, Federal education and training programs operated in an atmosphere of uncertainty because they were funded through a series of short-term continuing resolutions with funding for most programs substantially reduced from fiscal year 1995 levels. Although the omnibus appropriations law restored funding for most programs to fiscal year 1995 levels or even slightly higher, planning and budgeting were difficult for local school systems throughout early 1996.

Several Federal education programs are targeted directly at individuals or local school districts and have a large effect on rural areas. These include title I of the Elementary and Secondary Education Act (grants for educating disadvantaged students), impact aid (reimbursement for school districts for the costs of educating school children connected to the presence of Federal activities that limit property tax revenues), and Star Schools (money for distance education programs). Additionally, many of the Federal grant and loan programs for higher education, including Pell grants and Perkins loans, are very important to rural students. Many Federal job training programs, including the Job Training Partnership Act, have a significant effect on rural areas.

Twenty-Five Percent of Title I Funds for Educating Poor Children Are Spent in Nonmetro Areas

Title I is one of the largest Federal education programs, with a fiscal year 1996 budget of $7.2 billion. Title I provides schools with funds based on the poverty level of the children within the school. In the past, title I has primarily provided funds for compensatory education for children achieving below grade level in reading and mathematics. In 1994, the focus of the program was changed to put more emphasis on extended learning time and teaching higher order thinking skills, while minimizing the amount of time children are pulled out of the classroom for remedial education. Additional changes in the program made it easier for high-poverty schools to use title I funds to enrich all children in the school, rather than targeting special programs only at title I eligible children.

Approximately 25 percent of title I funds are spent in nonmetro areas. Title I funds are distributed widely across nonmetro areas, with the greatest concentrations in high-poverty areas: the rural South, Appalachia, and Indian reservations in the West (fig. 1).

Under the continuing resolution in effect during early 1996, title I funds were reduced $1.1 billion, over 15 percent of the fiscal year 1995 spending level. Because title I is forward funded and schools operated during the 1995-96 academic year on money appropriated during fiscal year 1995, the budget cuts specified in the continuing resolution did not significantly hurt title I programs. However, uncertainty about the level of funding for this program for the academic year 1996-97 made planning difficult for schools. Local school administrators worried that reduced title I funds would force title I schools to make significant staffing cuts and other programmatic changes for the 1996-97 school year. Many schools had to notify teachers that they might not be rehired in the fall, and many school boards had to submit a budget during the spring without knowing how much Federal aid they would get. The lack of a firm title I budget by spring 1995 put these districts in an awkward situation.

Rural Schools Dependent on Impact Aid Funds Faced Serious Difficulties During 1995-96 School Year

The Impact Aid Program was funded at $691 million for fiscal year 1996 under the omnibus spending act signed on April 26, a cut of 5 percent from the fiscal year 1995 level of $728 million. Impact aid is provided to schools in lieu of property taxes, because a large military installation, Indian reservation, or even a national park on nontaxable federally owned land puts a tremendous strain on a school district. Impact aid covers basic educational expenses and is not intended to provide districts with extra programs. Almost half of impact aid funds go to school districts in nonmetro counties, and many of these districts depend heavily on the funds. Some rural districts receive several thousand dollars per student in impact aid. Without impact aid, many districts would not have the resources to educate the large numbers of federally connected children living within their borders. Because Federal land holdings are concentrated in the West, impact aid is a particularly important program in rural Western counties (fig. 2).

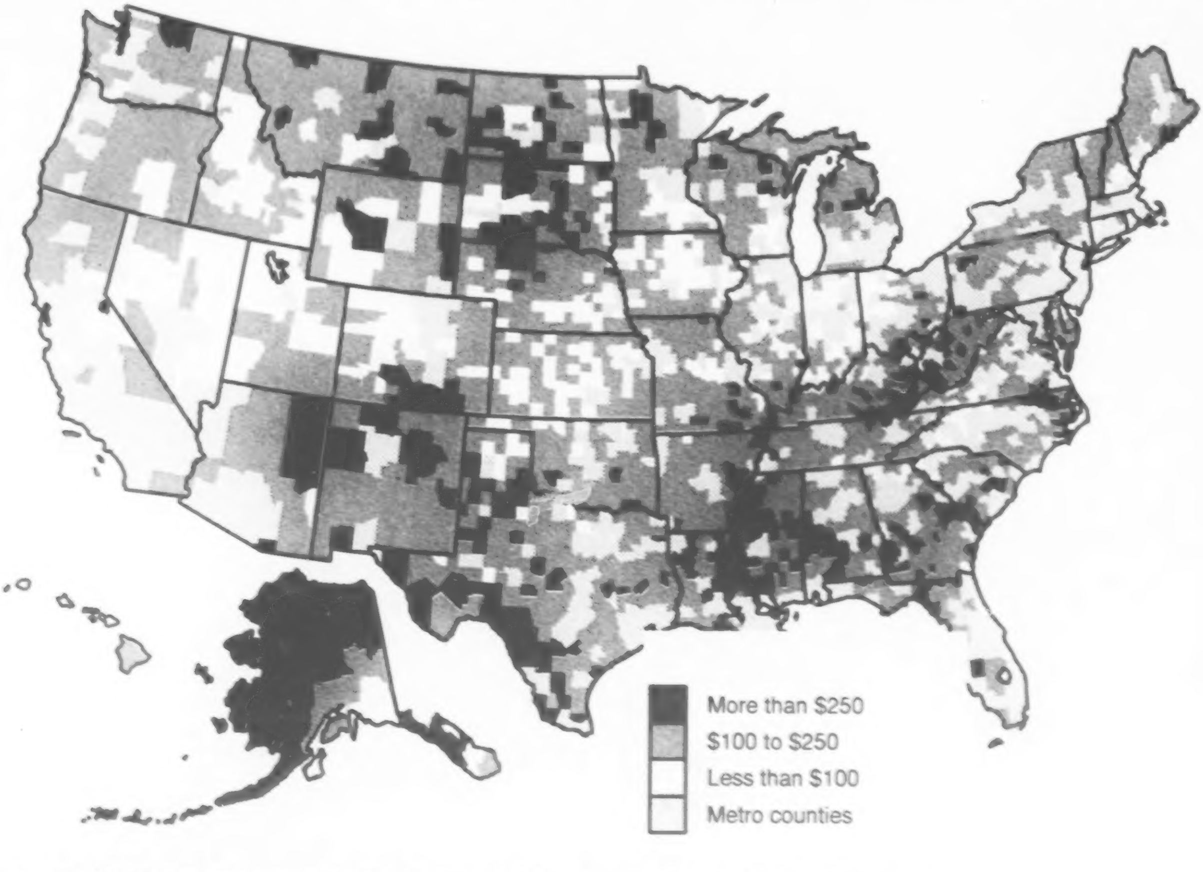
Impact aid is one of the few education programs that are not forward funded. Funds appropriated for fiscal year 1996 were spent during the school year 1995-96. Therefore, local schools were hurt by the continuing resolutions in effect during early 1996, which reduced impact aid funding from $728 million in fiscal year 1995 to approximately $550 million in fiscal year 1996.

Even this reduced level of impact aid was not available to schools until differences between the House and Senate appropriations bills were resolved in April 1996. When the House Appropriations Committee passed its 1996 education budget, it instructed the

Figure 1

Nonmetro title I spending per student, fiscal year 1994

Title I spending is spread throughout nonmetro counties with the highest concentrations in high poverty counties



Source: Calculated by ERS using Federal Funds data and 1990 census data from the Bureau of the Census.

Department of Education to allocate funds according to a new formula and told it to ignore a previously enacted hold-harmless provision that would have protected some districts from losing money from the change in formula. The Senate said nothing about the hold-harmless provision. Until April 26, the Department did not know how to allocate the impact aid funds. If it honored the hold-harmless provision and Congress eventually passed a budget bill which removed it, the Department would have to ask some school districts to return money and redistribute it to other districts. If it ignored the hold-harmless provisions, but Congress decided to continue them, the Department would be in the same position of asking for money back to redistribute to hold harmless districts. While waiting for clear instructions from Congress on the formula to use for payments, the Department adopted the conservative strategy of not paying any impact aid funds unless a school district could demonstrate a cash-flow crisis. Even then, the Department only partially paid the districts.

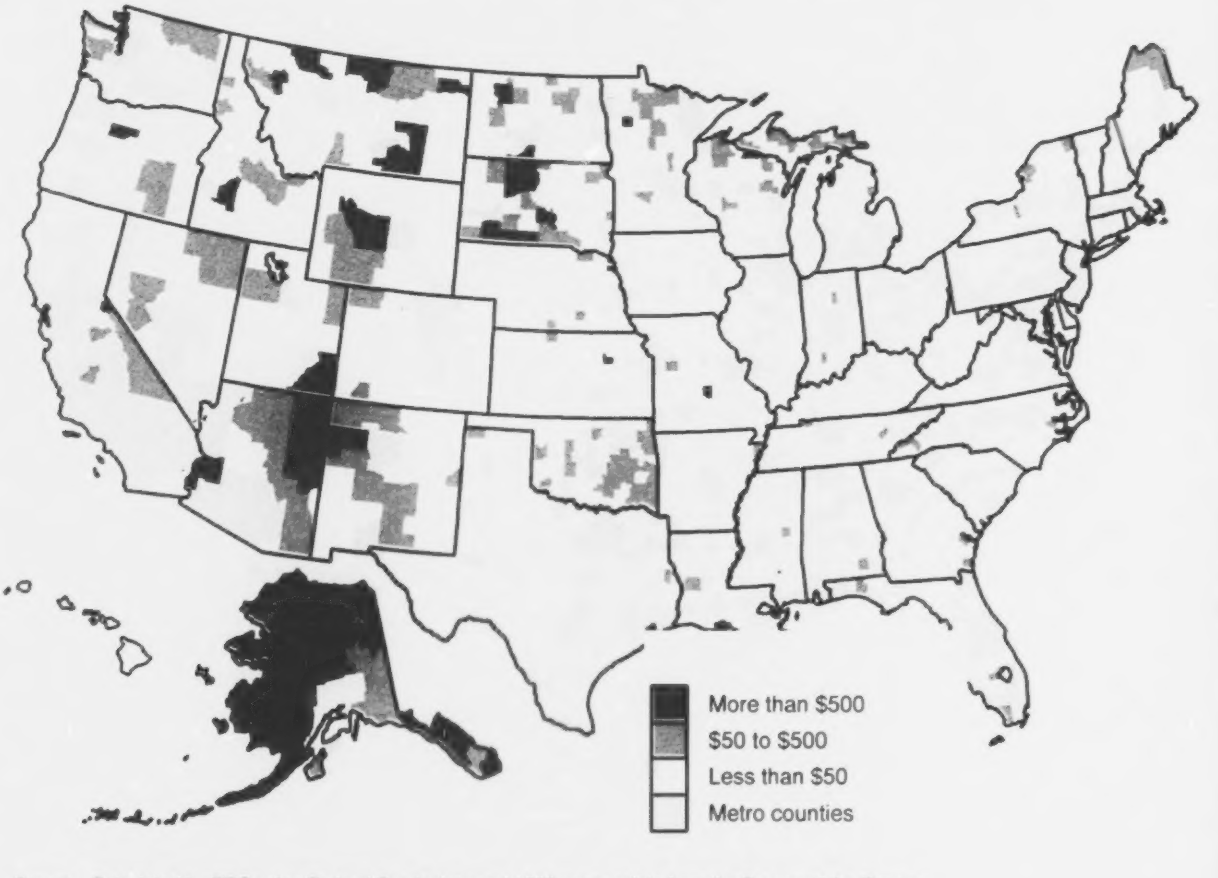
Star Schools Program Is Small, but Important to Isolated Rural Areas

Education's Star Schools Program, first authorized in 1988, provides local and State educational agencies with funds to encourage improved instruction in mathematics, science, foreign languages, literacy skills and vocational education through the use of telecommu-

Figure 2

Nonmetro impact aid spending per student, fiscal year 1994

Impact aid spending is concentrated in the West around Federally owned land



Source: Calculated by ERS using Federal Funds data and 1990 census data from the Bureau of the Census.

nications. The program is designed to serve poor and geographically isolated populations. For fiscal year 1996, Congress appropriated $23 million for Star Schools. In 1994 (the latest year for which metro-nonmetro breakdowns are available), over 35 percent of Star School funds went directly to schools in nonmetro counties. Many Star Schools funded programs are available to the community via cable television, as well as through individual schools. Although Star Schools is a small program compared with title I or impact aid, it can be quite important to isolated rural communities.

Postsecondary Financial Aid Awards Delayed in 1996 Because of Budget Crisis

Federal postsecondary financial aid is a major part of Education's budget. During the 1992-93 academic year, 32.1 percent of all undergraduates received Federal financial aid. The average Federal grant in 1992-93 was $2,003 and the average loan was $3,723. The fiscal year 1996 appropriations bill allocates $5.7 billion for Pell grants, a decline of 7 percent from the fiscal year 1996 appropriation of $6.1 billion. About 18 percent of Perkins loans and 19 percent of Pell grants go to nonmetro students.

The lack of a final appropriation for Pell grants and other financial aid programs for college students until April 26, combined with the two Government furloughs, made planning difficult for both students and colleges. Because most of Education was closed for 21 work days in late 1995 and early 1996, at a time when it had planned to test a newly implemented computer system for processing Free Applications for Federal Student Aid, the processing of these applications was seriously delayed. Education was not able to return to its normal 2-week processing time for financial aid applications until early April 1996. Because most colleges inform students of their financial aid eligibility by March, this delay in processing applications altered their normal calendar.

Until the continuing resolution of March 14, 1996, Congress had not specified the maximum award amount for Pell grants, so schools were unable to tell even students whose aid applications had been processed how large their award would be. Because many schools supplement Pell grants with their own financial aid funds, they were unable to make budgeting decisions about their own money. Federally guaranteed student loans are an entitlement, so schools were able to tell students whose aid applications had been processed how large a loan they were eligible for, but they could not give them the exact details of the loan until late April or early May.

Other Federal Education Programs' Effect on Rural Areas Difficult to Measure

Other Federal education programs, including Safe and Drug Free Schools and School-to-Work opportunities, were also funded under continuing resolutions through the first half of fiscal year 1996. Because most of these programs are forward funded, recipients did not have to adjust to the reduced spending levels specified in the continuing resolution. However, the reason for forward funding for education programs is to allow school districts planning time, and that was not possible for fiscal year 1996. We are unable to measure what proportion of the budget for these programs goes to rural schools, because funding is allocated through the States.

Job Training Funds Cut Significantly

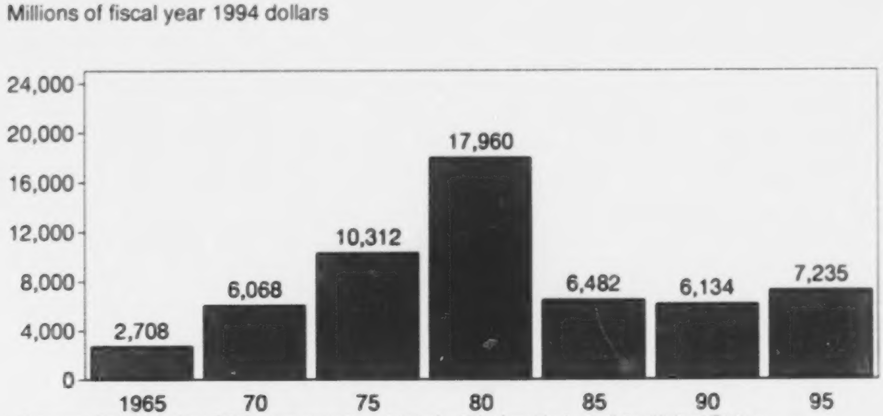
The Federal Government spent over $7.4 billion on job training and employment programs in fiscal year 1995. Federal spending on job training and employment peaked in 1978 at $22.7 billion (1994 dollars), before declining sharply during the early 1980's. It increased slowly in importance as a response to changing economic conditions in the first half of the 1990's, although not to anywhere near the levels of the late 1970's (fig. 3). Additionally, the Clinton administration has emphasized the Job Corps, increasing spending in this area more rapidly than in other Federal job training programs (fig. 4).

Job training and employment programs were among the programs with the largest budget cuts in the fiscal year 1996 budget. However, because job training programs are forward funded, these cuts did not take effect until July 1996. The total Employment and Training Administration budget, which includes all training programs in Labor, is $8.6 billion for fis-

Figure 3

Federal spending for training and employment programs, fiscal years 1965-95

Federal spending on training and employment programs grew sharply during the 1970's and then declined during the 1980's

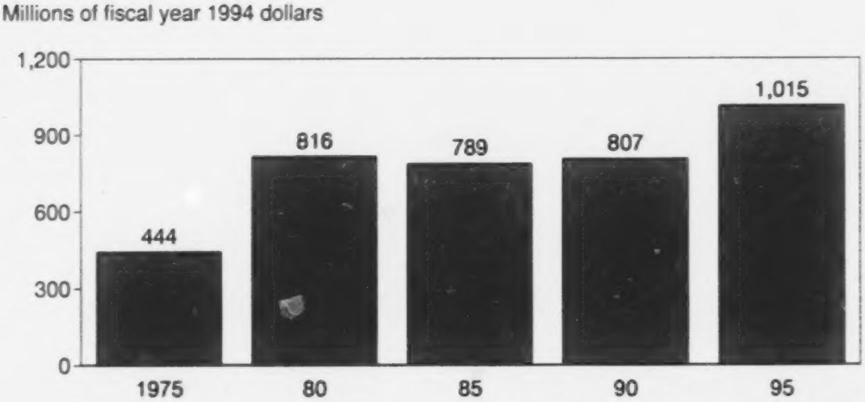


Source: Calculated by ERS using data from Historical Tables, Budget of the United States Government, Fiscal Year 1997.

Figure 4

Federal spending for Job Corps, fiscal years 1975-95

Federal spending for Job Corps was stable during the 1980's, but has been growing during the 1990's



Source: Calculated by ERS using data from the Digest of Education Statistics, 1995, U.S. Department of Education, National Center for Education Statistics.

cal year 1996, a drop of 12 percent from fiscal year 1995. Total funding for the Job Training Partnership Act (JTPA) was cut from $4.5 billion in fiscal year 1995 to $3.9 billion in fiscal year 1996, down 13 percent. Title IIB of JTPA, summer jobs for youths, had its funding cut 28 percent from $867 million to $625 million. Until April 26, when the final budget bill was signed, no one was certain whether there would be a Federal summer jobs program in 1996, making it difficult to plan for the summer. One of the few training and employment programs to maintain steady funding from fiscal year 1995 to fiscal year 1996 is the Job Corps.

Both the House and Senate passed legislation during 1995 to change the design and administration of Federal job training programs. The bills would have shifted almost all Federal job training programs into block grants to be administered by the States. The block grants would have been used to create one-stop training centers where job seekers could find out about all job training programs at the same time. However, the reforms were not enacted, although there is agreement in both parties that job training programs are too fragmented and reform is needed.

The Job Training Partnership Act, the largest of the Federal job training programs, distributes funds to States, which redistribute funds to local Service Delivery Areas where local Private Industry Councils help set policy. If a law is enacted in the future consolidating job training programs into a block grant, there would probably be fewer requirements to geographically spread out job training money. A block grant could hurt rural areas if inhabitants seeking job training are forced to travel longer distances to take advantage of training programs. *[Elizabeth Greenberg, 202-501-7980, egrnberg@econ.ag.gov]*

Proposals to Slow Growth of Federal Health Spending Focus on Medicare and Medicaid

The rapid growth of Federal health spending has prompted legislative proposals to control Medicare and Medicaid expenditures. The proposals will affect rural communities because the Medicare and Medicaid programs provide health insurance for over one-fourth of the nonmetro population.

Real Federal spending on health grew rapidly between 1990 and 1995, increasing from $207 billion to $307 billion in constant 1995 dollars (fig. 1).[1] By 1995, health programs accounted for one-fifth of the entire Federal budget, and there was growing concern about the effect of health spending on the budget deficit. Congress has begun considering legislative measures to slow the growth of spending on the Medicare and Medicaid programs, which are responsible for the bulk of Federal health expenditures. The proposed measures have important implications for rural communities because the two programs provide health insurance for 26 percent of the nonmetro population.

Most Federal Health Programs Provide Personal Health Care

The Federal government supports a wide variety of health-related activities, but 92 percent of Federal health spending pays for personal health care through programs run by three Cabinet Departments. Some Federal health programs serve individuals entitled to care under existing legislation, while others target populations without adequate health services. Programs for individuals include Medicare for the elderly and disabled and Medicaid for the poor (both run by Health and Human Services), plus separate health care systems for veterans (run by Veterans Affairs), military personnel and dependents (run by Defense), and Native Americans (run by Health and Human Services). Programs that target populations include the National Health Service Corps and Community Health Centers serving residents of designated underserved areas, and Migrant Health Centers serving migrant farmworkers and their families (all run by Health and Human Services).

This review focuses on how proposed legislative changes in the Medicare and Medicaid programs might affect rural communities. Medicare and Medicaid accounted for 88 percent of Federal health spending in 1995 and covered 74 million persons. Other Federal health care programs may also face funding changes, but serve much smaller populations than Medicare or Medicaid.

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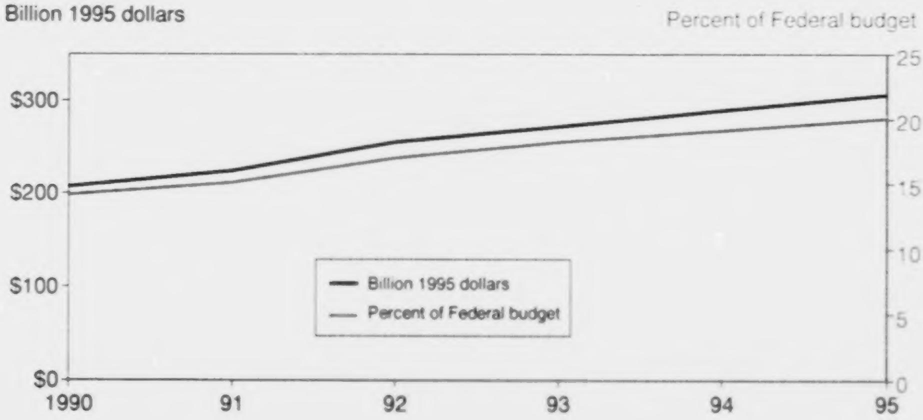
[1] References to years in this article are fiscal years in the case of Federal expenditures, and calendar years in all other cases.

Figure 1

Growth of Federal health spending, 1990-95

One-fifth of the Federal budget was spent on health in 1995



Source: Calculated by ERS from the Budget of the United States Government.

Medicare Covers Relatively More Persons in Nonmetro than Metro Areas

Medicare provides subsidized health insurance for the elderly aged 65 or older and certain nonelderly disabled persons under age 65. The program is financed by Social Security taxes, general Federal revenues, and monthly premiums paid by Medicare beneficiaries, who were liable for 24 percent of the total cost of health services covered by Medicare in 1995. Federal Medicare expenditures rose 11 percent during 1995 to $180 billion, accounting for nearly 12 percent of the Federal budget.

Medicare covered about 38 million persons in 1995, including 34 million elderly and 4 million nonelderly disabled persons. Nonmetro residents are more likely to have Medicare than metro residents because nonmetro residents are more likely to be elderly or disabled (table 1). Estimates from the March 1995 Current Population Survey (CPS) for the noninstitutional population (excluding persons in nursing homes and other institutions) indicate that 16 percent of nonmetro residents and 12 percent of metro residents had Medicare in 1994. Less recent enrollment statistics reveal that Medicare covered 20 percent or more of the total population in many nonmetro counties in the Midwest and Great Plains with high proportions of the elderly (fig. 2). Only a few metro counties had comparably high proportions of Medicare beneficiaries.

Nonmetro health care providers are more dependent on Medicare revenue than metro providers due to the higher proportion of Medicare beneficiaries in nonmetro areas.

Table 1

The Medicare program

Nonmetro residents are more likely to have Medicare than metro residents

Item	Metro	Nonmetro
	Percent	
Eligibility:		
(1) Proportion of elderly persons aged 65 or older, 1990	11.9	14.7
(2) Proportion of disabled persons unable to work among persons aged 16-64, 1990	3.8	5.6
Program beneficiaries:		
(3) Proportion of Medicare beneficiaries, 1994	12.2	15.8
	Dollars	
(4) Median income of Medicare beneficiaries, 1994	17,960	15,547
	Percent	
(5) Proportion of Medicare beneficiaries below poverty level, 1994	12.4	16.5
	Dollars	
Finances:		
(6) Average Medicare expenditure per beneficiary, 1992	3,937	3,191
	Percent	
(7) Proportion of physician gross practice revenue from Medicare, 1994	26.7	33.1
(8) Proportion of community hospital net patient revenue from Medicare, 1993	33.5	38.8

Sources: (1)-(2) 1990 Census of the United States; (3)-(5) ERS estimates from March, 1995 Current Population Survey; (6) Rural Policy Research Institute; (7) American Medical Association; and (8) American Hospital Association.

Medicare payments accounted for a larger share of physician gross practice revenue in nonmetro areas (33 percent) than metro areas (27 percent) in 1994. Medicare payments also represented a larger share of community hospital net patient revenue in nonmetro areas (39 percent) than metro areas (33 percent) in 1993.

The average Medicare expenditure per beneficiary was 19 percent lower in nonmetro areas ($3,191) than metro areas ($3,937) in 1992. The difference was due to the lower Medicare reimbursement rates for health care providers in nonmetro areas, as well as different patterns of health care use by metro and nonmetro beneficiaries.

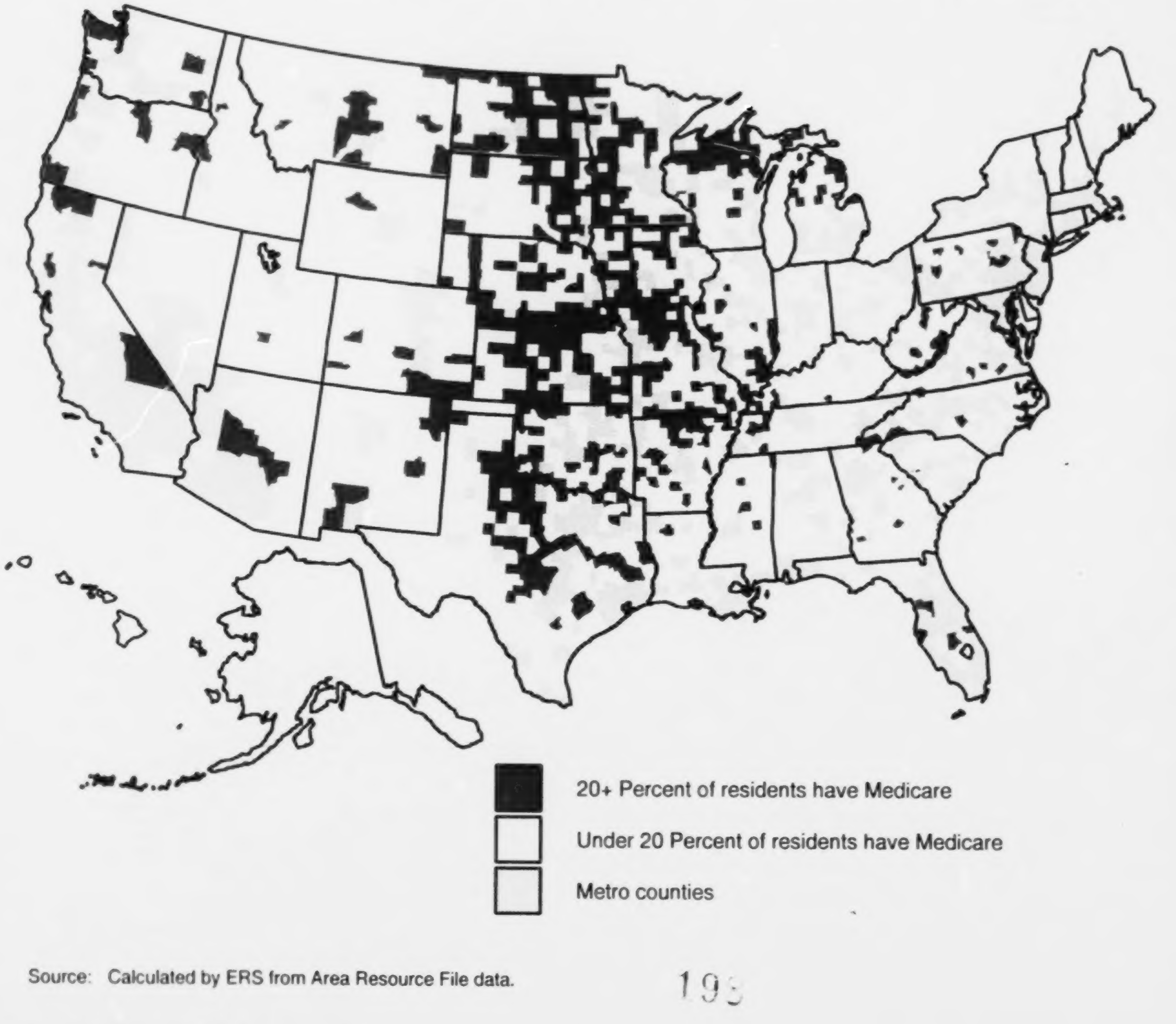
Proposed Changes in Medicare Will Affect Beneficiaries and Providers

Legislative proposals to slow the growth of Federal Medicare spending include (1) increasing the share of costs paid by Medicare beneficiaries, (2) reducing the growth of Medicare payments to health care providers, and (3) enrolling more beneficiaries in man-

Figure 2

Nonmetro counties with a high proportion of Medicare beneficiaries, 1991

Medicare covered one-fifth or more of the nonmetro population in many areas of the Midwest and Great Plains


20+ Percent of residents have Medicare
Under 20 Percent of residents have Medicare
Metro counties

Source: Calculated by ERS from Area Resource File data.

aged-care plans in the expectation that plans will provide health care at lower cost than traditional fee-for-service arrangements.

A general increase in cost sharing for Medicare beneficiaries will have a greater financial effect on nonmetro than metro beneficiaries because nonmetro beneficiaries have lower incomes. The March 1995 CPS indicates that median income was 13 percent lower for nonmetro beneficiaries ($15,547) than metro beneficiaries ($17,960) in 1994. Conversely, increases in cost sharing limited to high-income beneficiaries will probably affect relatively fewer nonmetro than metro beneficiaries.

Reductions in the projected growth of Medicare payments to health care providers may disproportionately affect nonmetro providers, who are more dependent on Medicare revenue than their metro counterparts. The effect on nonmetro providers will depend on how payment reductions are allocated among different categories of providers. Under current legislation, some categories of providers receive extra Medicare payments, including Sole Community Hospitals serving rural communities with only one hospital and physicians practicing in designated Health Professional Shortage Areas. Payment reductions could also affect the general population if Medicare hospital payments fall further below hospital costs for treating Medicare patients, forcing hospitals to shift additional unreimbursed costs to private patients or local taxpayers in the case of communities where public hospitals provide uncompensated care.

Proposals to enroll more Medicare beneficiaries in managed-care plans have focused on providing a wider choice of plans for beneficiaries. Measures that make managed-care plans more widely available could affect relatively more nonmetro than metro beneficiaries because nonmetro areas are less well served by plans than metro areas. However, the expansion of plans may also increase price competition among health care providers, threatening the financial viability of nonmetro providers whose ability to discount fees is limited by low patient volumes or profit margins.

Medicaid Covers Same Proportion of Metro and Nonmetro Residents

Medicaid is a combined Federal-State program to provide medical assistance for specific categories of the poor, including the elderly, disabled, and families with dependent children. The program is administered by individual States with the Federal government paying part of the costs under a matching formula based on State per capita income. In 1995, the Federal share of Medicaid costs ranged from 50 percent (in 13 States and the District of Columbia) to 79 percent (in Mississippi). Total Federal Medicaid costs rose 9 percent to $89 billion in 1995, accounting for nearly 6 percent of the Federal budget.

About 41 million persons were enrolled in Medicaid at some time during 1995, including nearly 2 million residents of nursing homes and other institutions. March 1995 CPS estimates indicate that there was no significant difference in the proportion of the noninstitutional population with Medicaid in metro areas (12 percent) and nonmetro areas (13 percent) in 1994 (table 2). Prior to 1994, Medicaid covered a higher proportion of nonmetro than metro residents. The disappearance of the metro-nonmetro difference in 1994 was associated with a decline in the nonmetro poverty rate.

The new welfare law enacted in August 1996 changed some aspects of the Medicaid program. The law terminated the Aid for Families With Dependent Children (AFDC) program that had determined Medicaid eligibility for poor families, but requires States to continue providing Medicaid for those meeting July 1996 AFDC eligibility standards. The law also allows States to deny Medicaid to most legal immigrants already in the U.S., and requires States to exclude most future legal immigrants from Medicaid for 5 years following their arrival. March 1995 CPS estimates indicate that Medicaid covered about 3 million noncitizens in 1994, nearly all in metro areas.

Medicaid covers only a minority of the poor because families with employed persons are generally ineligible for program participation. The March 1995 CPS indicates that Medicaid covered similar proportions of the metro and nonmetro poor in 1994 (table 2). Estimates from the March 1994 CPS based on a larger sample reveal that the nonmetro poor were least likely to have Medicaid in a large region including 10 Central States (fig. 3). A higher proportion of nonmetro poor adults were employed in the Central States (67 percent) than in other States (51 percent) in 1993, reducing Medicaid enrollment in the Central States due to the restrictions on coverage of families with workers.

Physicians derived a larger share of their gross practice revenue from Medicaid patients in nonmetro areas (16 percent) than metro areas (11 percent) in 1994. In contrast, nonmetro community hospitals received a smaller share of net patient revenue from Medicaid (11 percent) than metro hospitals (13 percent) in 1993. The geographic variations in physician and hospital revenue suggest that nonmetro Medicaid enrollees use relatively more physician services but fewer hospital services than metro enrollees, perhaps because nonmetro enrollees are less likely to visit hospital emergency rooms for non-emergency care.

There are large variations in Medicaid expenditures between States due to differences in medical benefits, reimbursement systems, the health status of enrollee populations, and other factors. In 1995, average Medicaid expenditures per recipient of medical assistance ranged from $1,891 in Tennessee to $7,276 in New York. (Arizona had lower expenditures than Tennessee, but the exact amount spent in Arizona was unavailable.)

Effect of Changes in Medicaid May Vary by State

Legislative proposals to slow the growth of Federal Medicaid expenditures initially included (1) setting annual limits on Federal Medicaid spending and (2) converting Federal matching funds into block grants to allow States to determine Medicaid eligibility and benefits. The State governors subsequently proposed that some categories of the poor remain automatically eligible for Medicaid benefits, including the elderly, pregnant women, and children under age 13.

The effect of annual limits on Federal Medicaid spending may vary by State, depending on whether States increase their own Medicaid spending, restrict the number of persons eligible for coverage, or reduce benefits to compensate for the new spending constraints. The effect on nonmetro areas will consequently depend on how individual States respond. Some States may regard the health needs of the nonmetro poor as a more important funding priority than other States.

Table 2

The Medicaid program

Metro and nonmetro residents are equally likely to have Medicaid although poverty is greater in nonmetro areas

Item	Metro	Nonmetro
	Percent	
Eligibility:		
(1) Proportion of persons below poverty level, 1994	14.6	16.0
Program enrollees:		
(2) Proportion of Medicaid enrollees, 1994	12.4	12.7
(3) Proportion of Medicaid enrollees among persons below poverty level, 1994	48.8	44.0
Finances:		
(4) Proportion of physician gross practice revenue from Medicaid, 1994	10.5	16.1
(5) Proportion of community hospital net patient revenue from Medicaid, 1993	12.9	11.4

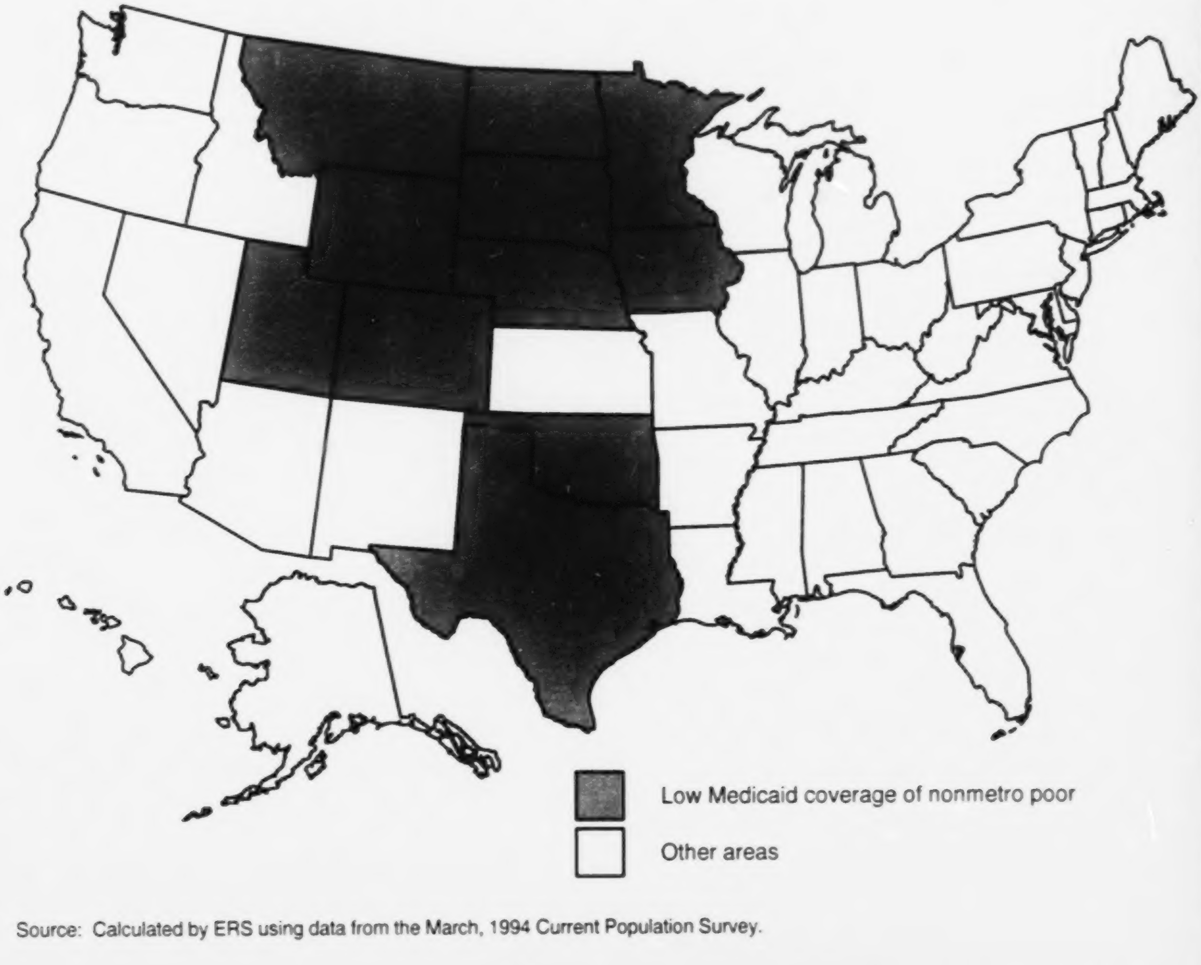
Sources: (1)-(3) ERS estimates from March 1995 Current Population Survey; (4) American Medical Association; and (5) American Hospital Association.

The conversion of Federal matching funds into block grants would give States more authority over Medicaid eligibility standards and benefits, even if some of the poor remain automatically eligible for coverage. It is difficult to predict how individual States might use the new powers provided by block grants, but States are unlikely to expand eligible populations or increase benefits in view of current efforts to limit public spending. *[Paul D. Frenzen, 202-501-7925, pfrenzen@econ.ag.gov]*

Figure 3

Regional variations in Medicaid coverage of the nonmetro poor, 1993

Only 29 percent of the nonmetro poor had Medicaid coverage in a large region covering 11 Central States



Source: Calculated by ERS using data from the March, 1994 Current Population Survey.

Income and Nutrition Support Programs Are Important Resources for Rural Communities

Income and nutrition programs are important sources of support for the rural elderly and for economically vulnerable rural people. They are especially important in the most rural areas and in those farthest from urban centers. There were few substantial changes in these programs in fiscal years 1995 and 1996, although major overhauls of all of the programs loom large in current public discourse.

Federal social insurance, disability insurance, and welfare programs provide retirement income to virtually all the rural elderly, transitional assistance to individuals and families facing temporary economic hardship, and a social safety net for the most economically vulnerable rural populations. Federal outlays for these programs increased somewhat in fiscal year 1996, although the increase was substantially above inflation for only the child nutrition programs (table 1). By far the largest Federal income support program is the Old Age, Survivor, and Disability Insurance Program operated by the Social Security Administration and popularly known as Social Security. Social Security accounted for 22.1 percent of all Federal outlays in 1995, and its benefits amounted to 6.4 percent of total personal income nationwide. Because rural areas are home to a disproportionate share of the elderly, Social Security is of more importance in rural than in urban areas. Means-tested programs, commonly referred to as welfare programs, while not making up a large share of aggregate rural income, are, nevertheless, important sources of support to the most economically vulnerable families and individuals in rural America. Almost one-fourth (23 percent) of the rural population is in households benefiting from one or more of the four largest federally supported welfare programs, and those households include 65 percent of the rural poor and over 80 percent of rural poor children (fig. 1). The Food Stamp and School Lunch Programs, with their wider eligibility, benefit a larger

Table 1

Summary of largest income support and nutrition programs

Projected Federal outlays for income and nutrition support programs in fiscal year 1996 are somewhat higher than in the previous year, but the increase is substantially above the inflation rate only for child nutrition programs

	Federal outlays by fiscal year			
Program	1995	1996 projected	Change	Rural areas most affected by the program
	Billion dollars		Percent	
Social Security (OASDI)	335.8	351.0	4.5	The most remote rural counties and retirement-destination counties
Aid to Families with Dependent Children (AFDC)	17.1	17.4	1.2	Persistent-poverty and transfer-dependent counties
Supplemental Security Income (SSI)	26.5	26.6	.5	The most remote rural areas and persistent-poverty, transfer-dependent, and mining-dependent counties
Food Stamps	25.6	26.3	3.1	The most remote rural areas and persistent-poverty, transfer-dependent, and mining-dependent counties
Child nutrition programs (primarily the School Lunch and School Breakfast Programs)	7.5	8.2	9.8	The most remote rural areas and persistent-poverty and transfer-dependent counties

Source: Budget of the United States Government, fiscal year 1997 share of the rural population than do Aid to Families with Dependent Children (AFDC) and Supplemental Security Income (SSI).

Social Security Is a Larger Share of Rural Than of Urban Income

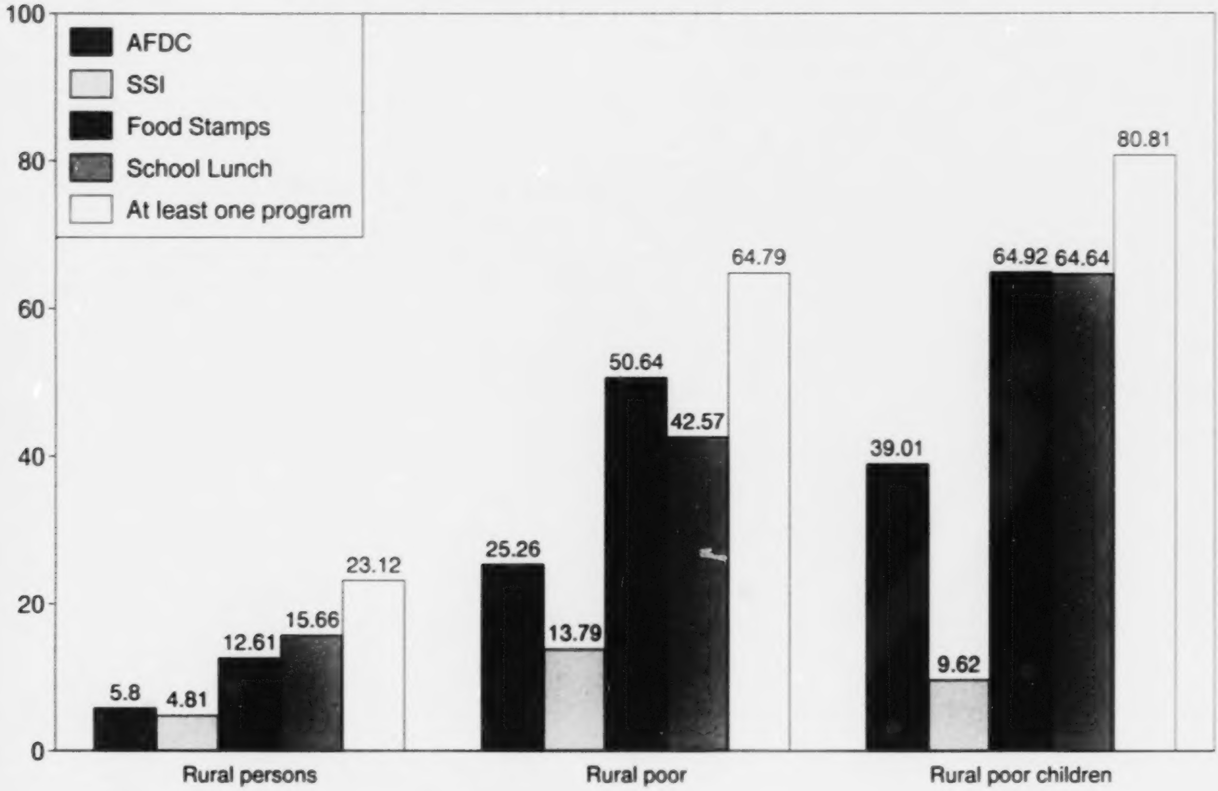
In 1993, 26 percent of the elderly lived in nonmetro counties compared with 21 percent of the non-elderly, and Social Security benefits made up 9.6 percent of total personal income in nonmetro counties compared with 5.8 percent in metro counties. The most remote rural counties and retirement-destination counties receive disproportionately high shares of Social Security income. Counties with a high proportion of Social Security income (more than 10 percent of total personal income) are concentrated in the Midwest, in the remote rural areas in Appalachia and the Northeast, and in high-amenity areas of the Sunbelt and the Northwest (fig. 2).

The projected increase in Social Security expenditures in 1996 is due to inflation and to growth in the elderly population, not to substantive changes in the Social Security program. Legislation enacted in March 1996 will raise the Social Security earnings limit gradually over the next 6 years for recipients age 65-69. When it is fully implemented, earnings allowed without loss of benefits will be $30,000 — more than double what it would have been under previous law. The effect of this change will be small in rural areas, affecting less than 8 percent of persons age 65-69 and less than 2 percent of all

Figure 1

Percent of rural population groups in households receiving selected program benefits, 1993

Almost all children in rural low-income families benefit from one or more means-tested support programs



Source: Prepared by ERS based on Current Population Survey March 1994 rural Social Security recipients. There has been some discussion of a downward adjustment of the Consumer Price Index (CPI), based on the argument that it has overstated inflation. If enacted, this adjustment would slow the growth of Social Security payments, because they are indexed to cost-of-living increases as measured by the CPI.

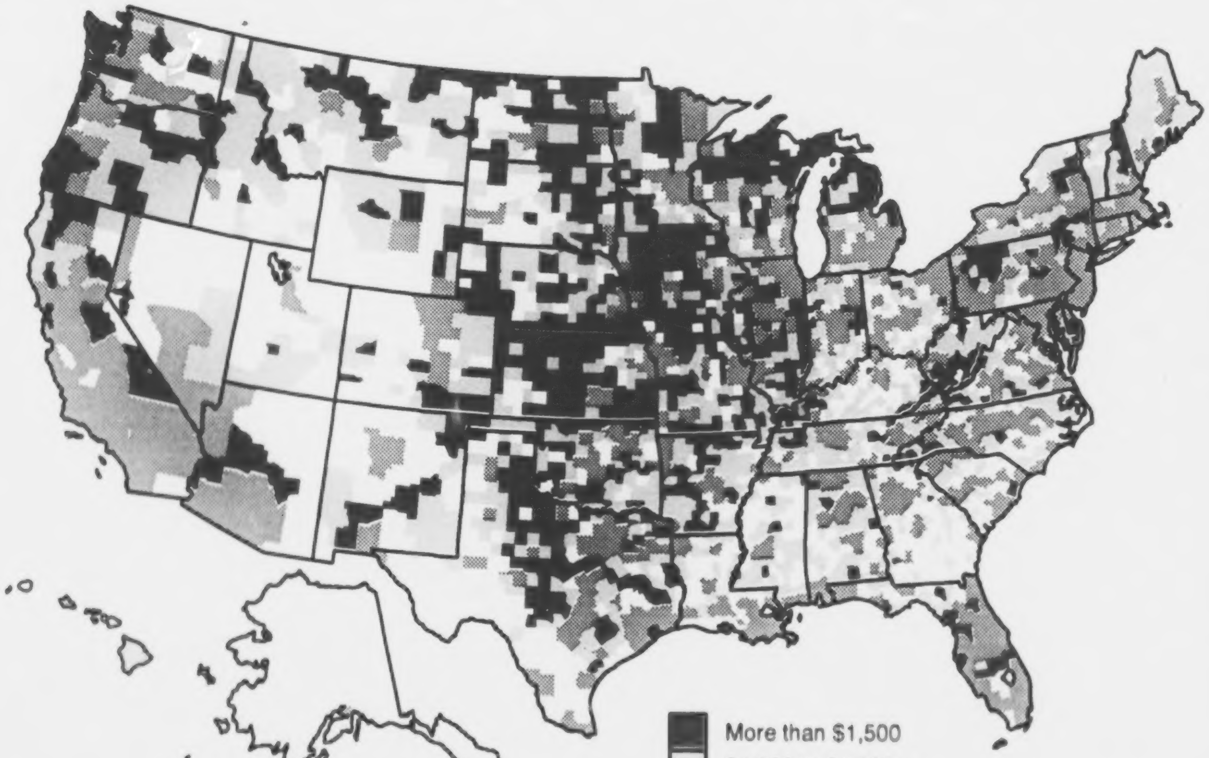
Rural Access to AFDC Is Constrained by Low Benefit Levels in States with Large Rural Populations

AFDC provides income support to very-low-income families with children under age 18. The overwhelming majority of beneficiaries (93 percent) are in families headed by women, although two-parent families with both parents unemployed also qualify. AFDC is funded jointly by Federal and State Governments with the Federal share varying from 50 to 80 percent depending on State per capita income. Eligibility criteria and benefit levels are set by States within very broad limits, with the result that participation rates and benefits vary widely among States. In 1993, average monthly benefits of recipient families varied from $121 in Mississippi to $568 in California and $751 in Alaska. The lowest benefit States, those averaging less than $300 per family per month, are disproportionately rural. They include 50 percent of the nonmetro population and 60 percent of the nonmetro poor, but only about 33 percent of the urban population. Although most persistent-poverty and

Figure 2

Per capita Social Security payments, fiscal year 1994

Social Security payments are an important income source in the most remote rural counties and in high-amenity rural counties



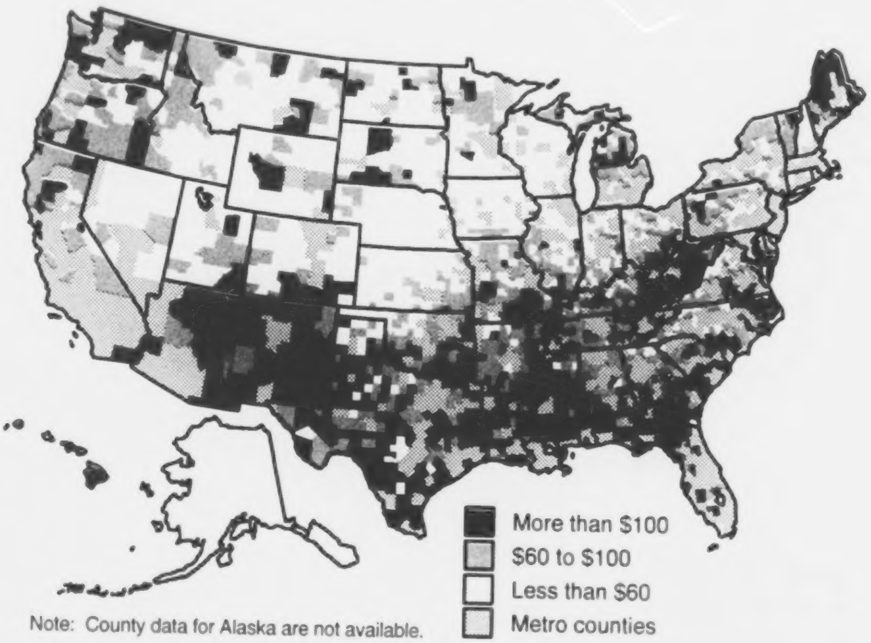
Source: Calculated by ERS using Federal Funds data from the Bureau of the Census

Figure 3

Food stamps, 1994, and poverty levels, 1989

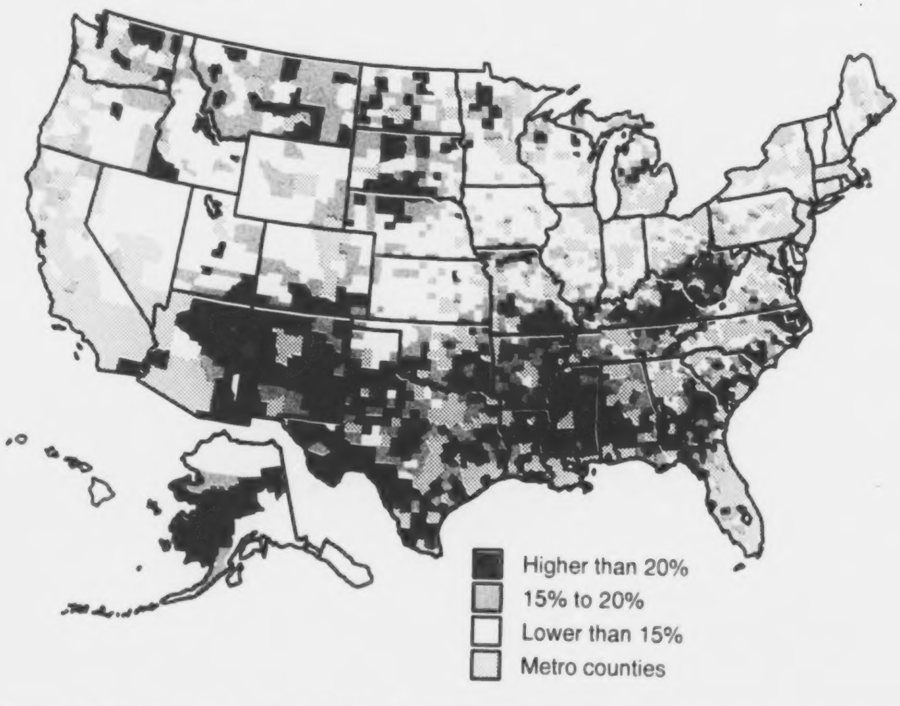
The Food Stamp Program, with its consistent national standard, is very effectively targeted to high-poverty counties

Per capita Food Stamp expenditures, fiscal year 1994


More than $100
$60 to $100
Less than $60
Metro counties

Note: County data for Alaska are not available.

Poverty rate, 1989


Higher than 20%
15% to 20%
Lower than 15%
Metro counties

Source: Calculated by ERS using Federal Funds and decennial census of population data from the Bureau of the Census.

transfer-dependent counties are in the lower benefit States, large shares of the population in those counties receive AFDC benefits, making per capita AFDC expenditures higher there than in other nonmetro counties.

Although AFDC has remained an entitlement in principle, almost all State programs are operating under waivers allowing them to impose additional requirements for receipt of assistance. Recently enacted welfare reform will terminate the entitlement status of AFDC, provide funds for the program to States in the form of block grants, and increase State discretion. Work requirements and time limits will be mandatory in the State programs and will pose challenges for rural low-income families because of the weak labor markets in rural areas where most of the AFDC recipients are located. AFDC has been funded through fiscal year 1996 by a series of continuing resolutions. Growth in program outlays from 1995 to 1996 was less than inflation.

SSI Provides Income of Last Resort to Rural Disabled and Elderly

SSI provides income support to low-income blind and disabled persons and to low-income elderly persons not covered by Social Security. Most of the program's 6 million beneficiaries are elderly, but people of all ages with physical, mental, and developmental disabilities receive assistance. SSI benefits rural people, especially those in the most remote rural areas, somewhat more than those in urban areas due primarily to the higher proportion of low-income elderly in rural areas. Per capita expenditures are highest in persistent-poverty counties, transfer-dependent counties, and mining-dependent counties. SSI outlays grew only about 0.5 percent from 1995 to 1996, representing a slight decrease when adjusted for inflation. Recently enacted legislation will eliminate SSI benefits for disability from drug and alcohol abuse and support for children with certain mental and behavioral disabilities.

Food Stamps Are Well Targeted to High-Poverty Rural Areas

The Food Stamp Program, operated by USDA, is one of the most important support programs for low-income rural residents. It is the only national program for which virtually every person with below-poverty income qualifies. Eligibility requirements and benefit levels are standardized nationally, which results in very effective targeting of food stamp funds to high-poverty counties (fig. 3). The program's effect, measured as the total value of food stamps per capita, is substantially higher in rural than in urban areas and is highest in the most rural areas (nonmetro counties not adjacent to metro counties). This is due both to the higher poverty rates in rural areas and to lower average benefit levels from other public assistance programs, especially AFDC. (Benefits from AFDC and other assistance programs are included in the income used to determine Food Stamp Program eligibility and benefits.) Food stamp receipts are highest in persistent-poverty and transfer-dependent counties and are also well above average in mining-dependent counties. In 1993, an eighth of the rural population was in households that received food stamps, and these beneficiaries included over half of the rural poor and nearly two-thirds of rural poor children. Food stamps remain an entitlement, and budget allocation is in accordance with anticipated demand by qualifying persons. Estimated program outlays for 1996 are just slightly higher than for 1995, after adjusting for inflation. The Food Stamp Program was reauthorized for 2 years with only minor changes in the Federal Agriculture Improvement and Reform Act of 1996. Changes introduced by the recently enacted welfare reform law will be analyzed in next year's issue of *Rural Conditions and Trends.*

Most Children in Low-Income Rural Families Benefit from School Food Programs

The National School Lunch and School Breakfast programs, operated by USDA, provide funds to public and private elementary and high schools to provide hot lunches and breakfasts to school children. Children from families with income below 130 percent of the poverty threshold qualify for free meals; those from families with income from 130 to 185 percent of the poverty line qualify for reduced-cost meals. Children from higher income families can purchase meals from the school programs at very slightly subsidized rates. Rural families, especially those in the most remote rural areas, benefit disproportionately from this program because of the generally lower incomes in rural areas; 31 percent of all rural children, including 65 percent of poor rural children, received free or reduced price meals in 1993. This program remains an entitlement, and budget allocation is in accordance with anticipated demand. *[Mark Nord, 202-219-0554, marknord@econ.ag.gov]*

Funding Continues to Drop in Defense Programs

Defense funding declined for fiscal year 1996. While defense spending will likely increase in nominal terms in the next few years, the expenditures will be a declining portion of the Nation's gross domestic product, and some programs will receive fewer dollars (in real terms) than they are currently receiving. Funding priorities did not undergo significant changes for fiscal year 1996 from that established in earlier fiscal years. While the bulk of spending in defense programs is in metro counties, nonmetro counties do receive a substantial sum.

On February 10, 1996, President Clinton signed into law the National Defense Authorization Act for Fiscal Year 1996 (P.L. 104-106). The bill authorizes "appropriations for fiscal year 1996 for military activities of the Department of Defense, to prescribe personnel strengths for such fiscal year for the Armed Services, and for other purposes." This and two earlier acts (P.L. 104-61 and P.L. 104-32) cover the fiscal year 1996 budget for the Defense Department that includes not only the primary mission of national defense, but funds for local economic adjustment to the declining defense expenditures, environmental restoration from military operations, and U.S. Department of Energy and national security programs.

While the $266 billion in the act's budget for fiscal year 1996 was $7 billion more than the President had requested, it represented a decline from the estimated $272 billion in fiscal year 1995 expenditures. The post-Cold War trend of less spending on national defense continues but is bottoming out. Nevertheless, the expenditures on the Nation's defense, as a portion of total Federal outlays according to current departmental budget plans, will continue to decline for the rest of the decade (from 20.5 percent in 1994 to an estimate of 15.4 percent in the year 2000). The 1990's have reversed the 1980's trend of increased spending on defense. In addition, Defense, unlike most other Federal departments and agencies, began restructuring and reducing the number of personnel (both civilian and military personnel) several years ago.

The four major components of defense spending are procurement, personnel, operations and maintenance, and research and development. Procurement (purchases of new military equipment) is the only category expected to receive an increase in outlays during the latter half of the decade (47 percent by 2001); the other categories are expected to receive gradually less funding through the year 2000. The fiscal year 1996 budget for procurement, however, calls for only $48 billion in outlays, a decline of $6 billion from fiscal year 1995 levels. Consistent with the proposed outlays, employment in the private industry that supplies Defense will have decreased from 3.6 million in 1989 to about 2.1 million by 1997 (procurement funding fell 70 percent from the peak in 1985 to the current fiscal year, 1996). Probably less than 15 percent of this industry is in rural areas.

Personnel is the funding category most important to rural areas. Roughly 22 percent of domestically based military personnel (active-duty, National Guard, and Reserves) are in rural areas (nearly a half a million). While the number of personnel will have declined by about 30 percent between 1989 and 1999 according to Presidential budget proposals, the share rural areas have will remain roughly the same if this reduction continues to follow the same pattern. Most of the decline in the number of military personnel has already taken place. An outlay of $67 billion is expected for military personnel during fiscal year 1996; a decline of $3 billion from fiscal year 1995 outlays. The National Guard and the Air National Guard, for example, will lose 27,000 personnel in fiscal year 1996. Figure 1 shows the concentrations of military personnel (active-duty, National Guard, and Reserves) across the country.

While the economic effects of realignment and reductions in the various forces (active-duty, National Guard, and Reserves) are spread across the Nation, some rural communities are especially feeling the affect from the reduced level of the military. More than 20 of the 75 rural military bases that existed in 1990 will be closed by the end of the decade; some other rural bases will have fewer personnel. Communities near bases undergoing cutbacks will face greater economic distress than most others across the Nation.

With the ongoing adjustments in the defense sector, programs have been set up to assist communities that have had to face adjustments. Slightly more than $40 million in Federal outlays during fiscal year 1994 were spent on military base reuse studies and planning assistance for communities experiencing base closures and realignments, one of the programs with the greatest direct impact on rural areas. Approximately $4.5 million was for rural communities' efforts to develop plans for the redevelopment of former military properties (table 1). The largest beneficiaries, however, were in metro areas: $5 million for Monterey County, CA; $3.8 million for York County, VA; $3 million each for Sacramento County (Sacramento), CA, and Suffolk County, MA; and nearly $1.5 each for Alameda County (Oakland), CA, and Dorchester County (Charleston), SC.

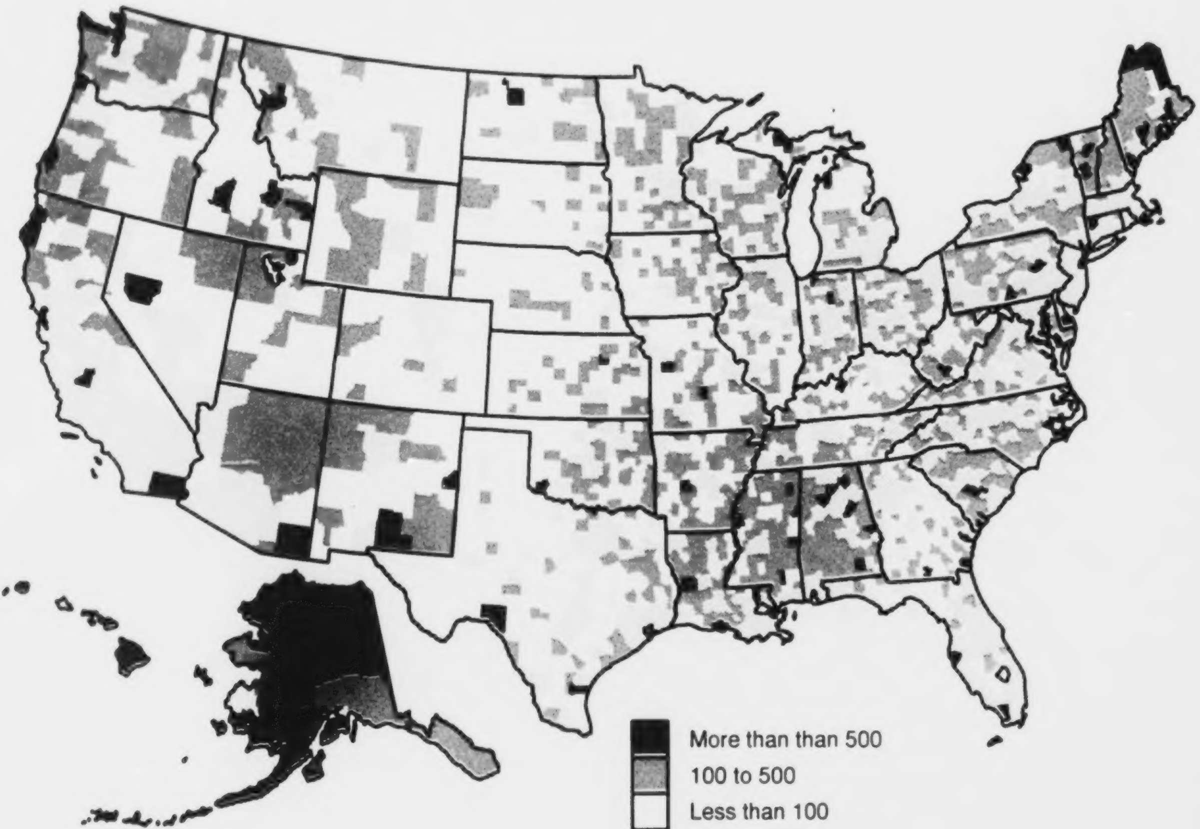
Community planning assistance for defense industry adjustments totaled nearly $10 million in funding; nonmetro counties directly received $650,000 of this sum. The program helps communities plan their adjustment to the changes in defense industries. Only 12 communities received this funding in fiscal year 1994; five are in nonmetro counties (table 2). The largest outlays again went to metro areas: Bexar County (San Antonio), TX, received $8 million; Dallas County (Dallas), TX, received $331,000; and Orange County, CA, received $300,000. Funding for adjustment programs is expected to hold steady or rise slowly for the rest of the decade.

Defense programs contain special set-asides. The fiscal year 1996 budget, for example, calls for a number of special expenditures to assist in the return of nonmetro military properties to local communities. In the return of Kahoolawe Island to Hawaiian natives, for example, the bill authorizes $25 million to be put into a trust fund for the

Figure 1

Active duty, National Guard, and reserves in the 50 States, 1993

While nearly all counties have military personnel, the heaviest concentrations are in the South and the Northeas



Source: Calculated by ERS from data provided by the U.S. Department of Commerce, Bureau of Economic Analysis.

Table 1

Nonmetro counties receiving military base reuse assistance

Twelve nonmetro counties received assistance in fiscal year 1994

County	Amount of grant
	Dollars
Lowndes County, Alabama	100,000
Mississippi County, Arkansas	707,510
Humboldt County, California	46,875
Ripley County, Indiana	347,600
Vernon Parish, Louisiana	75,000
Aroostook County, Maine	696,288
Franklin County, Maine	200,000
Marquette County, Michigan	705,600
Clinton County, New York	901,446
Clearfield County, Pennsylvania	230,000
Bee County, Texas	286,300
Tooele County, Utah	184,500
Total nonmetro	4,481,119

Source: Calculated by ERS from Federal Funds data.

Table 2

Nonmetro counties receiving community planning assistance for defense industry adjustments

Five rural communities received the funding in fiscal year 1994

County	Amount of grant
	Dollars
Bonneville County, Idaho	98,120
Labette County, Kansas	135,000
Seneca County, New York	170,000
Tooele County, Utah	196,400
Pulaski County, Virginia	50,000
Total nonmetro	649,520

Source: Calculated by ERS from Federal Funds tapes.

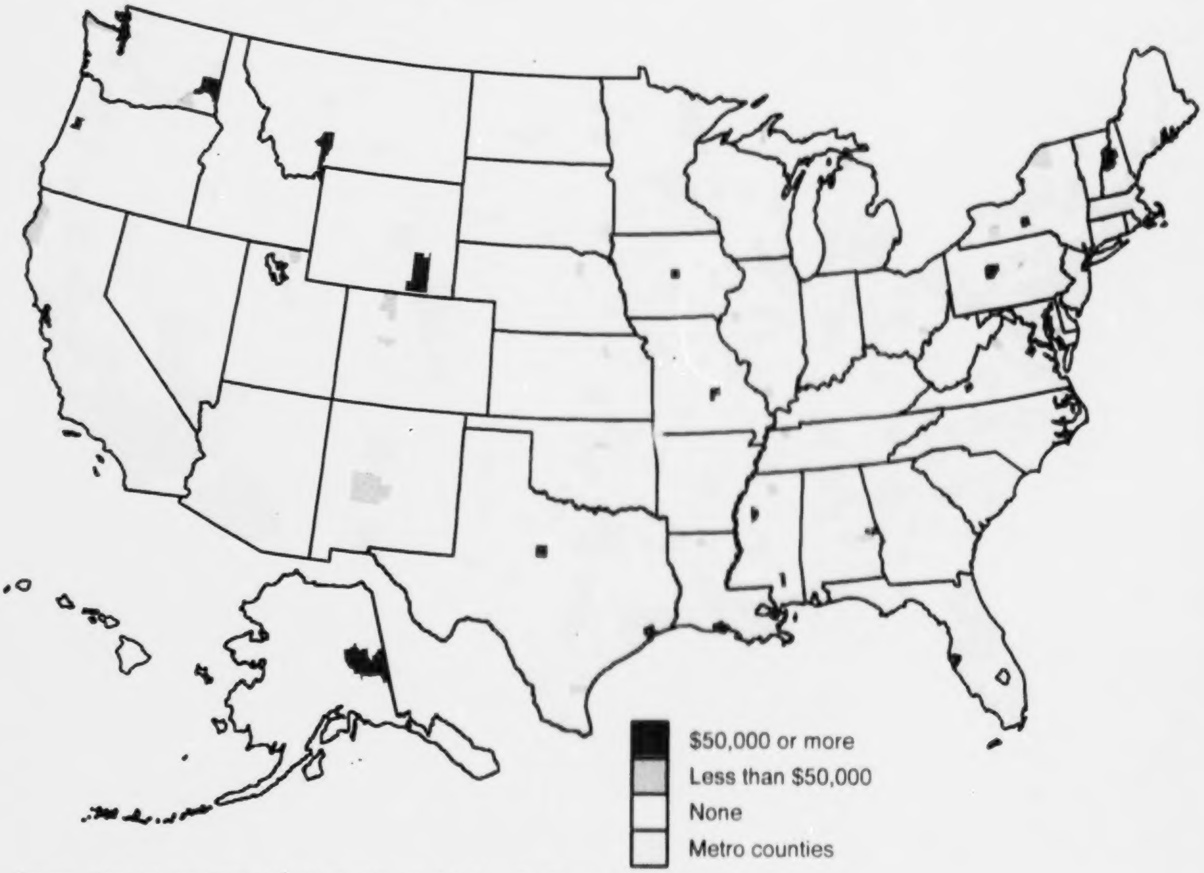
island's restoration (the island had been taken over during World War II for Navy target practice and, as a consequence, the fund would be used toward the removal of unexploded ordnance).

Nearly $35 billion was spent in fiscal year 1995 by Defense on research, development, testing, and evaluation. Approximately the same will be spent in fiscal year 1996 with a slight increase expected for the rest of the decade. These Department of Defense expenditures have some impact on rural areas. In fiscal year 1994, nearly $500 million was spent on basic and applied research with approximately 7.5 percent ($37 million) going directly to nonmetro counties. Basic and applied research funding in nonmetro counties for fiscal year 1994 can be seen in figure 2. Overall, Defense spent $1.4 billion in research programs, such as basic and applied research, medical research, and astronomy research; $82 million (6.1 percent) went directly to nonmetro counties. The recipients are units of the military, private companies, and universities. Most rural recipients are universities. *[Peter L. Stenberg, 202-219-0543, stenberg@econ.ag.gov]*

Figure 2

Defense investment in basic and applied scientific research, fiscal year 1994

Rural universities are frequent recipients of the funds


$50,000 or more
Less than $50,000
None
Metro counties

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

1996 Agricultural Legislation Cuts Link Between Income Support Payments and Farm Prices

The Federal Agriculture Improvement and Reform Act of 1996 replaces income support payments tied to farm prices with a series of seven annual fixed but declining production flexibility contract payments, totaling more than $35 billion during 1996-2002. Participating farm operators must continue to comply with conservation provisions related to highly erodible land and wetlands preservation to receive contract payments.

Under pressure to have new legislation in place before spring planting got underway in mid-April and the winter wheat harvest began, Congress passed the Federal Agriculture Improvement and Reform Act of 1996 in late March 1996. Agriculture Secretary Glickman, although "concerned about the dissolution of the safety net that protects farmers and rural America during lean times," recommended that the President sign the bill. The President, in turn, signed the bill into law on April 4 "with some reluctance," stating that his goal is to have "truly farmer-friendly" legislation.

Failure to enact new legislation would have meant that many commodity programs would revert to "permanent law" dating back to 1938 and 1949, not to the Food, Agriculture, Conservation, and Trade Act of 1990. Most farm legislation subsequent to the permanent law has been temporary amendments that expire every 4 or 5 years.

If farm policy had reverted to permanent law, loan rates based on an outmoded formula would have skyrocketed, and programs would have become increasingly chaotic. The result would have been tremendous expense to taxpayers and long-lasting disruption in the farm sector. Nevertheless, after considerable discussion in Congress about whether to repeal the permanent law, the new 7-year farm legislation largely suspends permanent law provisions. This ensures that farm programs will be debated when the 1996 law expires.

The 1996 legislation overhauls many farm programs and policies that have been in place since the 1930's. In a move toward a more market-based agriculture, the legislation frees farmers from most production restrictions, eliminates acreage reduction (set-aside) requirements, and ends mandatory crop insurance. However, an operator who does not buy crop insurance must waive rights to disaster payments, if such payments are authorized.

The legislation also ends deficiency payments based on the difference between market prices for wheat, feed grains, cotton, and rice and their target prices. Instead, title I of the 1996 legislation, entitled the Agricultural Market Transition Act, authorizes a fixed production flexibility contract payment that is not linked to prevailing market prices, and that declines over the 7 years of the contract regardless of market conditions. Any operator receiving such a contract payment is required to comply with conservation and wetland protection provisions of the legislation.

Although both the House and Senate discussed eliminating the peanut and sugar programs, instead the new legislation modifies the programs and scales back the level of support. Nonrecourse loan programs for other commodities remain in place with some modification. For example, the legislation increases the interest rate for Commodity Credit Corporation (CCC) loans 1 percentage point over the CCC's cost of borrowing from the Treasury.

The revised dairy program provides for a 4-year phase-out of Federal purchases of cheese, butter, and nonfat dry milk. It also makes available to processors a recourse loan program to be implemented for these milk products beginning in 2000. The dairy program provides for consolidation and reform of Federal milk marketing orders within 3 years, to not less than 10 nor more than 14 orders. Meanwhile, however, in accordance with provisions of the 1996 Act, the Secretary of Agriculture has granted authority to implement a Northeast Interstate Dairy Compact based upon a finding of compelling public interest. Congressional consent for the compact terminates when the new consolidated Federal marketing orders become effective.

The 1996 legislation has several provisions related to conservation programs, including reauthorizing the Conservation Reserve Program (CRP) and the Wetlands Reserve

The 1996 Legislation Removes the Link Between Income Support Payments and Farm Prices

Direct payments to farmers through commodity programs (deficiency payments) were intended to provide some government control over production of selected farm products and to protect incomes of producers from wide swings in market prices. Eligibility sometimes required taking a portion of cropland out of production (set-aside), and the payment rate was based on the spread between target prices and market prices.

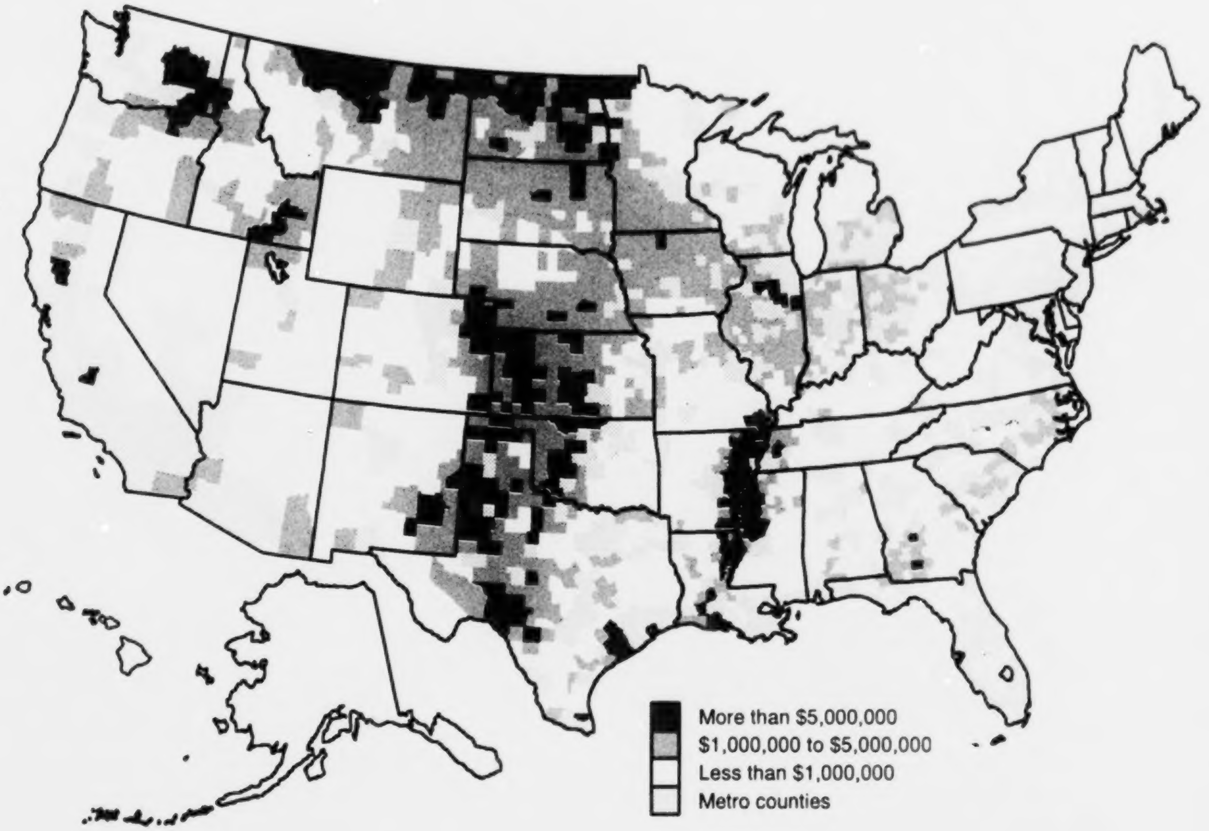
Direct payments to farmers for wheat, feed grains (corn, sorghum, barley, and oats), cotton, rice, and wool totaled nearly $5 billion in fiscal year 1994, with more than three-fourths going to nonmetro counties. These payments to farmers in nonmetro counties were concentrated in the Northern and Southern Plains, Corn Belt, and lower Mississippi Valley (fig. 1). Total direct payments per nonmetro county ranged from $0 to $10.6 million in fiscal year 1994, averaging $679,000.

Direct payments under commodity programs added more than $70 per capita to nonmetro county income, on average. Counties with the highest payments per capita were clustered primarily in the Northern and Southern Plains.

Figure 1

Direct government payments to farmers in nonmetro counties, fiscal year 1994

Direct government payments for wheat, feed grains, cotton, rice, and wool provided more than $5 million to 213 nonmetro counties, primarily in the Northern and Southern Plains, and the lower Mississippi Valley



Note: The National Wool Act expired as of December 31, 1995.
Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Direct payments under commodity programs added more than $70 per capita to nonmetro county income, on average. Counties with the highest payments per capita were clustered primarily in the Northern and Southern Plains.

Under the new legislation, eligibility for the 7-year production flexibility contract payments requires that a farm operator have a planting history of a contract commodity for at least 1 of the previous 5 years, or have land that was enrolled in CRP with an associated planting history of a contract commodity. Thus, the market transition payments would, in most cases, go to those who had received deficiency or CRP payments in the recent past.

Nevertheless, the legislation does offer another avenue to obtain a contract. New entrants to farming or formerly nonparticipating operators may become program participants by purchasing or share-renting land that is already under a production flexibility contract. However, they will likely pay higher prices for land under contract. A purchaser may acquire rights to the remaining years of the contract payment by agreeing to comply with the conditions of the contract. If production flexibility contracts are not extended or replaced with another income support program when the current farm legislation expires, then land prices will likely reflect the effect of the loss of income from government payments.

Although the total national payout is fixed by law, the distribution of payments depends on how many producers participate and the number of contract acres. In addition to the currently eligible base, eligible cropland coming out of CRP could be added to the contract acreage at the beginning of each fiscal year.

The legislation establishes overall spending limits to the maximum extent practicable that decrease from $5.57 billion in fiscal year 1996 to $4.008 billion in fiscal year 2002. The allocation of contract payments remains set for the 7-year period for: wheat, 26.26 percent; corn, 46.22 percent; sorghum, 5.11 percent; barley, 2.16 percent; oats, 0.15 percent; upland cotton, 11.63 percent; and rice, 8.47 percent.

Because current commodity prices are high, deficiency payments under the old program would have been low. Production flexibility contract payments are not linked to market prices and are expected to be higher over the next 7 years than the amount projected for the old deficiency payments (fig. 2). Total outlays for production flexibility contract payments for fiscal year 1996 under the new legislation (over $5 billion) exceed outlays projected under the old program, and annual outlays will not fall below $5 billion until 2001.

By the August 1, 1996, deadline, over 97 percent of eligible acreage had been enrolled in 7-year Production Flexibility Contracts. The switch to the new program will offer a one-time boost to cash-flow for some farm operators. Advanced 1995-crop deficiency payments that have to be refunded because of overpayment will be added to funds available for contract payments. Then, 100 percent of the new contract payment for fiscal year 1996 will be paid by September 30, 1996, half of it within 30 days of signing a contract. For each of fiscal years 1997 through 2002, operators have the option of receiving 50 percent of the contract payment on December 15 or January 15 of the respective fiscal year, and the final payment no later than September 30.

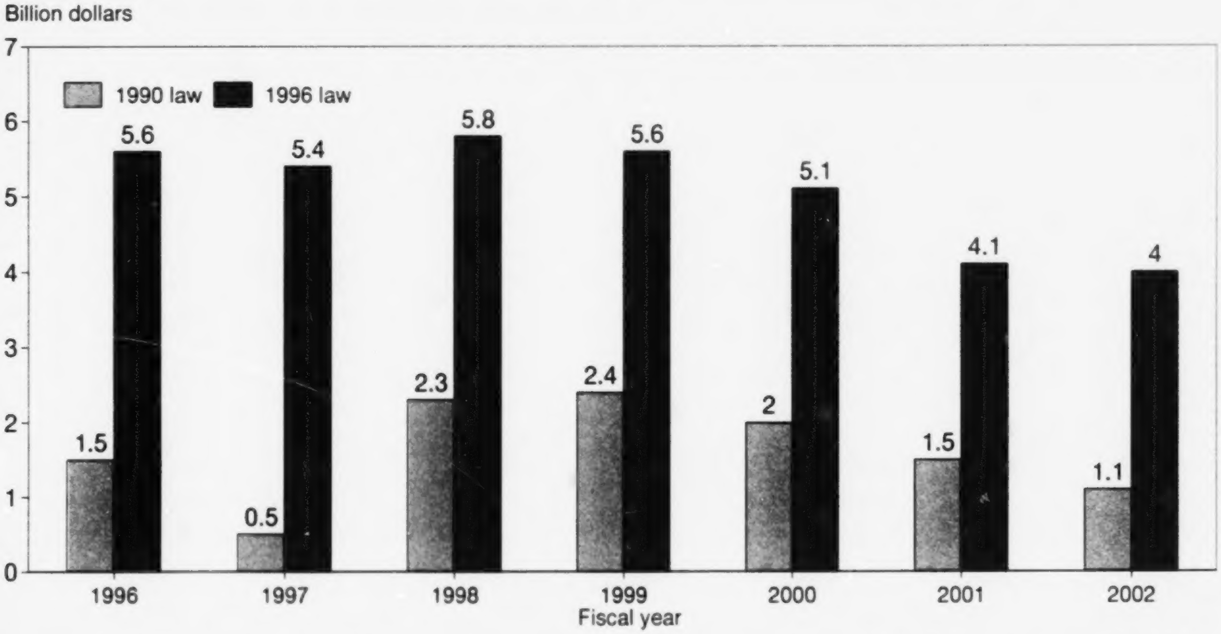
In 1994, 36 percent of all farms received direct government payments. Commercial-sized farms (those with sales of $50,000 or more) were more likely to participate in government programs than smaller farms, and these large farms received higher payments per farm, because payments were mainly based on acreage (fig. 3).

A large share of 1994 program payments went to producers of cash grains in rural areas of the Corn Belt and Northern Plains. In these regions, farms have higher debt/asset ratios and are more likely to have reached their debt-repayment capacity. Farms in the cotton-producing areas of the rural southwest also have high debt/asset ratios and farm income that is highly dependent on government payments. Operators of some of these farms may have difficulty adjusting as they shift to production based on anticipated market conditions with the new contract payments.

Figure 2

Projected direct farm payments

Under the 1996 legislation, the amount of Federal spending on direct farm payments is likely to be higher than the amount projected under the 1990 law



Source: "1996 Farm Act Impacts: An Early Assessment,"*Agricultural Outlook*, Aug. 1996, pp. 22-25, C. Edwin Young and Paul C. Westcott, USDA/Economic Research Service.

Land in Expiring CRP Contracts May Be Added to Production Flexibility Contract Acreage

The Conservation Reserve Program (CRP) was authorized by the 1985 farm legislation as a voluntary long-term cropland retirement program with a soil conservation orientation. By the early 1990's, over 36 million acres of environmentally sensitive land were enrolled in the program, primarily under 10-year contracts. The 1996 legislation caps enrollment at about the current level, but allows the enrollment of new land as room is made available by the expiration or early termination of old contracts. Termination of contracts is not permitted for land enrolled after January 1, 1995, and deemed to be of high environmental value or land that has been enrolled for less than 5 years.

Payments under the CRP totaled $1.7 billion in fiscal year 1994, with about 90 percent going to nonmetro counties (fig. 4). Income from CRP averaged $29 per capita in the nonmetro counties. In fiscal year 1994, 12 States, primarily in the Northern and Southern Plains and the Corn Belt, had more than 1 million acres enrolled in CRP. Most nonmetro counties where payments to operators totaled more than $1 million are located in those States.

Around 15 million acres of CRP-enrolled land under contracts scheduled to expire in 1996 were offered 1-year extensions. The number of acres that were extended is not yet known, but an additional 8.5 million acres is up for renewal in 1997 (fig. 5). Since base acres enrolled in CRP retain their planting history, some of this acreage would be eligible for production flexibility contracts. Overall, about two-thirds of CRP acres are eligible to be enrolled under production flexibility contracts.

Any increased economic activity in the farm sector could lead to growth in the nonfarm sector. If crop prices remain high and operators do not re-enroll farmland in CRP, acreage returned to production could provide some new jobs in agricultural production, and spending for agricultural inputs might increase. Additional employment in food and fiber processing, distribution, and marketing industries could result as more farm products move through domestic and world markets. However, little change is projected in land in production, and not all of the income and employment resulting from a return of CRP acreage to production would stay in rural areas. Nevertheless, some areas where farming is important could realize gains.

It is unknown whether these changes will translate into higher farm incomes beyond higher contract payments. If the additional supply cannot be absorbed in the marketplace and prices fall, farm incomes could drop and some of the potential benefits to rural communities would not materialize.

Effects of Changes in Farm Legislation Go Far Beyond Program Recipients

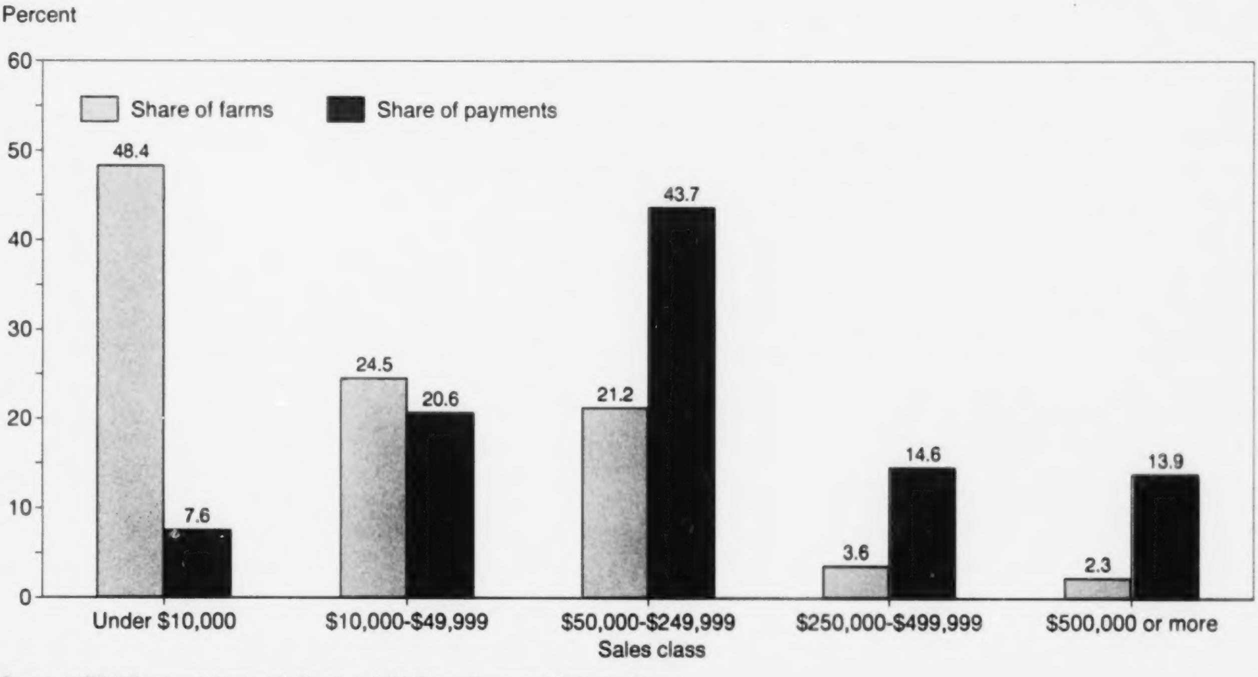
Farm programs provide a stable source of income to program participants and can benefit other agriculture-related businesses. Increased income generated in the farm sector contributes to expansion in the nonfarm sector as farm families buy additional goods and services in the local economy. Over time, government payments to farmers are capitalized into higher farmland values, improving the tax base for rural communities.

Not surprisingly, the 556 nonmetro farming-dependent counties are located in the same areas where direct government payments are concentrated. Direct government payments to individuals totaled more than $1 million in 73 percent of farm-dependent counties in fiscal year 1994. In addition, CRP payments to landowners totaled more than $1 million in 43 percent of nonmetro farm-dependent counties in fiscal year 1994. Dependence on income from farming and high levels of farm income from government payments make these counties especially sensitive to changes in farm programs. *[Judith E. Sommer, 202-501-8313, jsommer@econ.ag.gov, and Janet E. Perry, 202-219-0803, jperry @econ.ag.gov]*

Figure 3

Direct government payments, by sales class, 1994

Commercial-sized farms (sales $50,000 or more) got far more than their proportionate shares of government payments in 1994

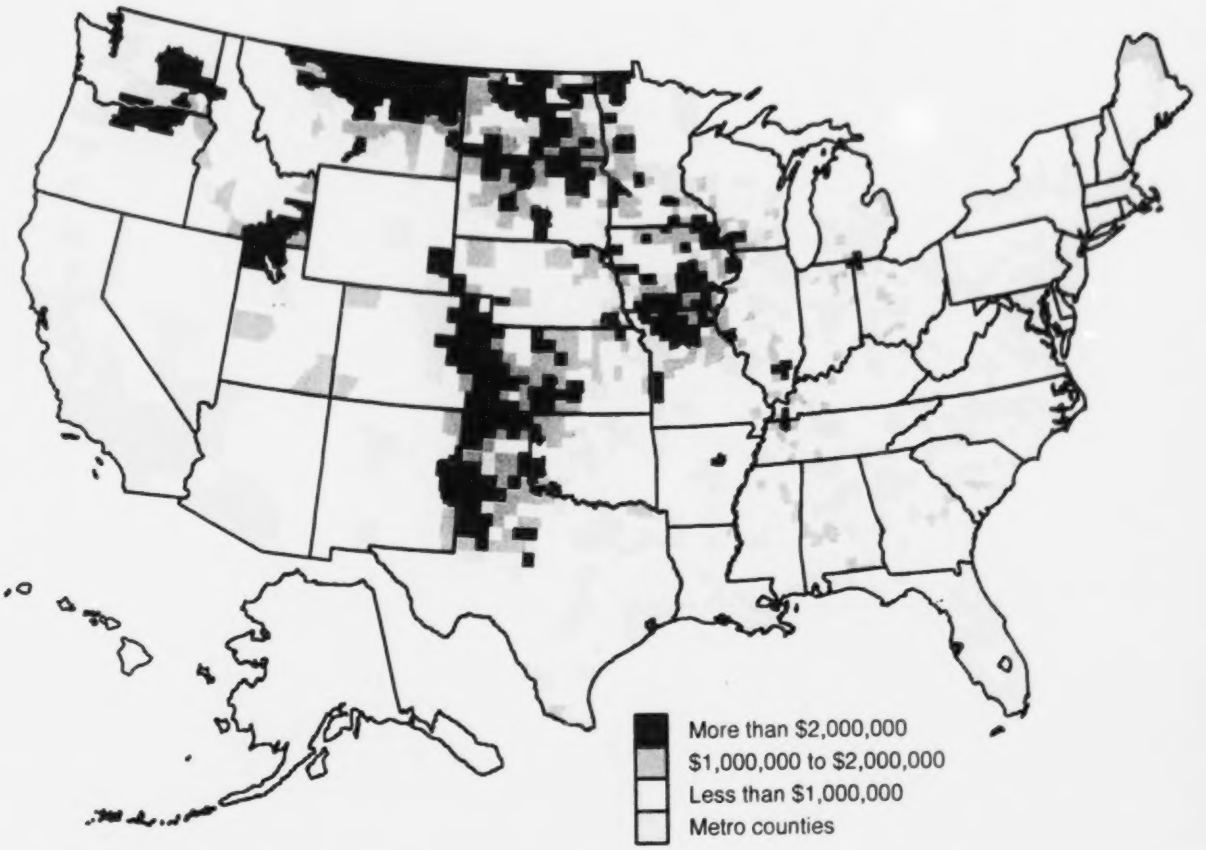


Source: USDA/Economic Research Service, 1994 Farm Costs and Returns Survey.

Figure 4

Conservation Reserve Program payments in nonmetro counties, fiscal year 1994

The 244 nonmetro counties that received more than $2 million from the CRP are clustered primarily in the Northern and Southern Plains, and the western Corn Belt

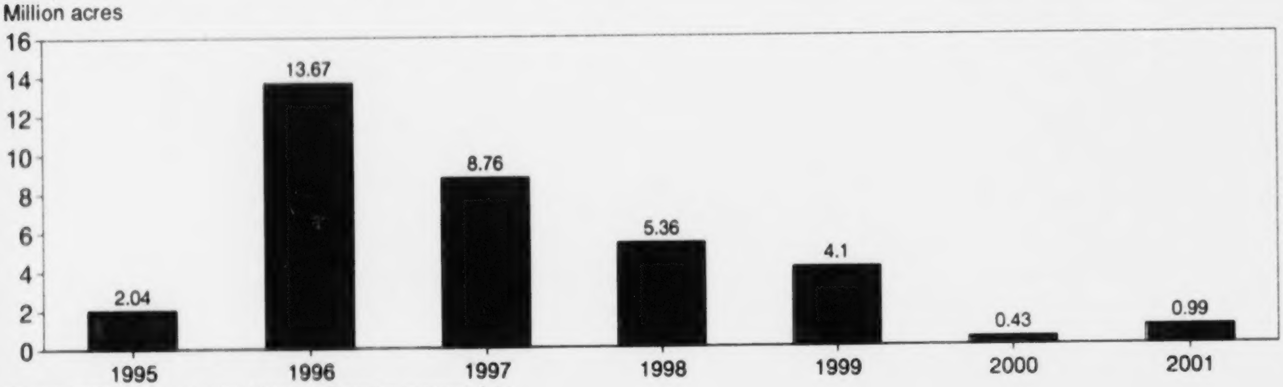


Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Figure 5

Post-contract availability of Conservation Reserve Program land, 1994

More than two thirds of farmland put under CRP contracts during 1983-86 becomes available for cropping or other uses by late 1997



Source: USDA Conservation Reserve Program contract data.

Social Services, Trade, and Native American Programs Have Sustained Budget Cuts

Some important programs involving social services, trade, and Native American assistance have sustained budget cuts in fiscal year 1996, disproportionately affecting those rural States and communities that have particular needs for these programs.

In this section, we cover three groups of programs that play substantially different roles: social services, trade and export promotion, and Native American assistance. Each group contains programs that have sustained significant budget cuts in fiscal year 1996. (Unless otherwise indicated, references to years in this article are fiscal years.)

Social Services help individuals and families overcome problems, such as drug abuse, aging disabilities, and lack of child or foster care, that limit participation in the local community and economy. Most social service programs fund State and local governments and/or nonprofit groups that provide assistance to families and individuals. Many programs fall into this category. Among these, with their 1995 appropriations, are five large programs administered by the Department of Health and Human Services (HHS): Community Services Block Grants, $389 million; Social Services Block Grants, $2.8 billion; Child Care Development Block Grants, $935 million; Foster Care and Adoption, $3.6 billion; and Aging Services, $877 million.

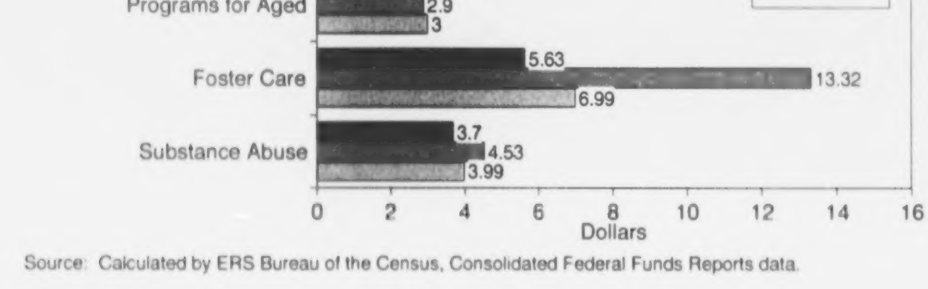
Recent funding trends for these programs are mixed, as HHS operated under continuing resolutions through most of 1996. Funding for Child Care Development Block Grants remained constant from 1995 to 1996. This program slightly favors rural States over urban States (fig. 1). Funding for the Community Service Block Grants, Social Service Block Grants, and the aging programs, which also tend to favor rural States, has declined. Funding for foster care, which tends to favor urban States, has increased, while funding for the Substance Abuse Program, which also favors urban States, has declined. *[Rick Reeder, 219-0551, rreeder@econ.ag.gov]*

Trade and Export Promotion Programs are increasingly important as rural economies become more dependent on the global economy. USDA has several programs promoting exports of agricultural commodities, including the Export Credit Guarantee Programs, the Market Access Program (MAP), and the Export Enhancement Program (EEP). USDA's P.L. 480 (title I) concessional program also has the effect of increasing U.S. agricultural exports. The U.S. Department of Commerce's International Trade Administration (ITA)

Figure 1

Social service program funding, per capita, fiscal year 1994

Foster care particularly favors urban States



Source: Calculated by ERS Bureau of the Census, Consolidated Federal Funds Reports data.

programs include trade development, foreign trade zones, and special projects. The Agency for International Development (AID) programs can also be viewed as adding to U.S. exports to AID-assisted developing countries.

Under USDA's largest export subsidy programs, the Commodity Credit Corporation (CCC) Export Credit Guarantees (GSM-102 and GSM-103), U.S. exporters registered sales valued at $2.9 billion in 1995. These two programs plus two new programs are authorized to provide $5.7 billion in assistance in 1996. The rural counties relying heavily on agricultural exports, such as wheat-growing areas in the Northern Great Plains, corn and soybean areas in the Midwest, and cotton and rice areas in Texas and the Mississippi Delta, benefit most from these programs. These programs provide export credits to developing and middle-income countries with exchange constraints that would otherwise prevent the purchase of U.S. agricultural commodities without commercial credit being made available.

Funding for some other USDA trade programs is expected to decline in 1996. For example, the MAP promotes high-value products, such as fruits and vegetables, meats, dairy and processed foods. MAP regulations require that small businesses and cooperatives be given priority assistance. The 1996 farm legislation authorized MAP funding at $90 million per year from 1996 through 2002, an 18-percent reduction from 1995. The EEP employs price subsidies to ensure the competitiveness of U.S. exports. Funding for this program was expected to increase from 1995 to 1996. While the 1996 farm legislation reduces EEP price subsidies in 1997, the law authorizes increases from 1998-2000, followed by modest reductions through 2002.

Funding for USDA's concessional P. L. 480 (title I) program, which provides food assistance to developing countries, declined by about 8 percent from 1995 to 1996. Besides helping the affected countries, this assistance also stimulates U.S. exports of wheat, cotton, oils, rice, and feed grains.

The budget for Commerce's ITA programs has remained at about $265 million. Among the more important programs for rural areas has been the Consortia of American Businesses in the Newly Independent States (CABNIS), which works with food processing industries, dairy operations, and agribusinesses to increase U.S. exports, especially meat exports, to Eastern Europe. This program, however, has not issued any new awards since September 1994. Commerce's Office of Travel and Tourism was shut down in mid-1996, and this could decrease the visibility of rural areas to foreign tourists. The private sector Rural Tourism Foundation, begun in 1992, is expected to take over this tourism promotion responsibility, with the help of a computer network at the University of Colorado.

AID's development assistance programs help to modernize industries, develop markets, and provide food aid to underdeveloped countries. These programs were cut significantly by the 1995 rescissions; AID's New Independent States programs were cut less. Agency restructuring and the proposed absorption of AID into the U.S. Department of State make it difficult to predict the future of these programs. *[Rick Reeder and Amy Cox, 202-219-0551, e-mail rreeder@econ.ag.gov]*

Native American Programs provide most of the Federal assistance that Indian reservations receive. The majority of Native American program funding comes from the Bureau of Indian Affairs (BIA) and the Indian Health Service (IHS), which collectively account for $3.8 billion in assistance for Native Americans in 1996. Other agencies provide significant funding to Native Americans, including the U.S. Department of Education's $52-million Indian Education Program and the U.S. Department of Housing and Urban Development's (HUD) $160-million Indian Housing Development Program. Many of these programs have undergone significant funding cuts in 1996.

The BIA budget was cut 9 percent from its 1995 budget of $1.7 billion. Affected activities may include education, law enforcement, housing for the elderly, adult vocational training, natural resource protection, land management, reservation road maintenance, and various administrative support activities. The effect on Native Americans will vary among tribes, because tribes have considerable freedom in deciding how to use BIA funds. In addition, funding for BIA construction projects is down 25 percent from $130 million in 1995. This cut directly affects construction, repair, and improvement of various major tribal projects, including schools, irrigation, and power systems. General assistance payments and foster-care for Native Americans, as well as tribal organization contracts, will not, however, be affected by the decrease in funding for BIA, since appropriations for these activities have already been signed into law under separate legislation (P.L. 104-91 and P.L. 104-92).

Pending legislation would reorganize the BIA, but the specific details have not yet been finalized. The purpose is to make the Agency more responsive to the needs of tribal governments. This has widespread support, both in Congress and among tribal leaders.

IHS provides medical care to the 1.4 million Native Americans who are members of federally recognized tribes. Its $2.2-billion budget is virtually unchanged from 1995. However, funding for construction, repair, maintenance, and improvement of tribal Indian health facilities declined by about 5 percent from $253 million in 1995.

The Indian Education Program was cut significantly to only 65 percent of its 1995 budget of $81 million. This is an important source of funding for elementary and secondary schooling for Native Americans. Nonmetro schools serving Indian populations will likely be negatively affected. HUD's Indian Housing Development program was also cut significantly, down 20 percent from $200 million in 1995. *[Dennis Brown, 202-219-0329, dennisb@econ.ag.gov]*

Federal Tax Developments Limited to the Earned Income Tax Credit

Despite the absence of major tax legislation in 1995, some important tax policy developments occurred for rural America. These included the continued phase-in of the expanded earned income tax credit enacted in 1993 and new legislation aimed at improving the targeting of the credit. The large number of tax proposals pending, including the fundamental reform of the Federal income tax, suggests that changes of even greater importance to rural America may be enacted in the near future.

Despite the introduction of a number of new tax initiatives during the year, there were no major tax bills, and only a few minor changes were actually enacted into law in 1995. However, as a result of previous legislation, some significant developments occurred with regard to the earned income tax credit.

The earned income tax credit is a refundable tax credit available to low-income workers who satisfy certain income and eligibility criteria. Most recipients receive the credit in a lump sum at the end of the year by claiming it on their Federal income tax return. Since the credit is refundable, any amount in excess of Federal income and other tax liabilities is used to help the taxpayer offset social security taxes. This refundable portion of the credit is considered a program outlay, while that part used to offset Federal income taxes is considered a tax expenditure. In recent years, about 75 percent of the total credit has been refunded to taxpayers. In fiscal year 1994, based on Federal funds data, the refundable portion of the credit was just over $12 billion. The total value of the credit was $15.7 billion.

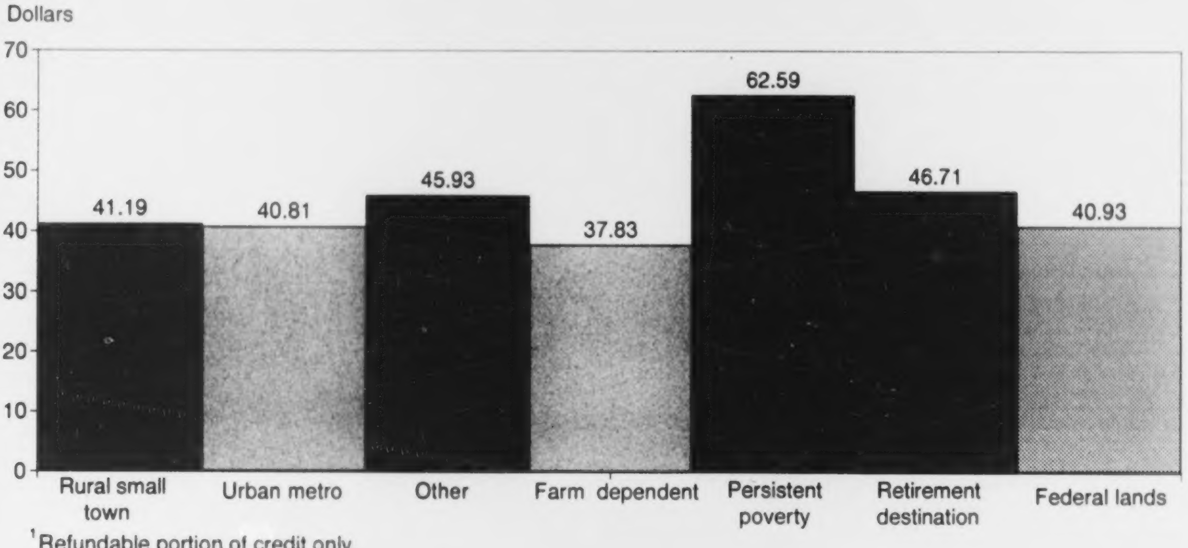
Legislation enacted in 1995 affects eligibility for the earned income tax credit beginning in 1996. Under this legislation, an otherwise qualifying individual will no longer be eligible for the earned income tax credit if the taxpayer has interest, dividend, or net rent or royalty income in excess of $2,350. The primary purpose of this change was to improve the targeting of benefits by denying eligibility to those individuals who may have a relatively low level of earned income but a significant amount of unearned income suggesting some wealth. An estimated 1 to 2 percent of all recipients in 1995 will be ineligible for the credit as a result of this change. However, as many as 10 percent of farmers currently receiving the credit will be disqualified in 1996.

The most significant development with regard to the credit occurred not as a result of legislation enacted in 1995 but because of a 1993 law phased in over a 4-year period.

Figure 1

Per capita earned income tax credit benefits by type of State, fiscal year 1994[1]

Benefits are largest in persistent-poverty States[2]



[1] Refundable portion of credit only.

[2] See data definitions for State Classifications.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

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Under the 1993 act, the credit rate for eligible workers with two or more children was increased from 19.5 percent to 40 percent (18.5 to 34 percent for eligible workers with one child). The credit was also expanded to include some low-income workers without children. Thus, both the number of beneficiaries and the level of benefits have significantly increased. For fiscal year 1996, the refundable portion of the credit is expected to increase to $19.1 billion. This represents about 85 percent of the total estimated credit amount of $22.3 billion.

Since the credit is targeted to low-income workers, many of whom are below or near the poverty level, benefits have been the largest in those States identified as persistent-poverty States. Such States received an average per capita benefit in fiscal year 1994 of $62.59 (fig. 1). An additional $19.30 per capita benefit was provided to residents in these States in the form of a Federal income tax offset, resulting in a total per capita benefit of $81.89.

A comparison of rural and urban recipients at the State level is less revealing. In fiscal year 1994, about 16 percent of rural taxpayers received the credit versus only about 12 percent of urban taxpayers. However, per capita benefits in rural States were only slightly higher at $41.19 compared with $40.81 for urban States. This may reflect the overlap between rural and farm-dependent States. Farm-dependent States have the lowest per capita benefit levels at $37.83. This is consistent with the fact that the share of farmers receiving the credit is below that for all taxpayers and only about half that of other rural residents.

Pending Tax Proposals Suggest More Significant Developments in the Future

The large number of tax proposals pending and the delay of action on a number of these during 1995 and 1996 suggest more tax legislation in the future. Both the administration and Congress have proposed significant tax law changes, including a child tax credit, a reduction in capital gains tax rates, education and savings incentives, and additional provisions designed to improve targeting and reduce benefits under the earned income tax credit. Proposals that would completely overhaul the existing Federal income tax system, including a number of flat tax proposals, are also likely to receive some attention. While none of these changes are specifically targeted to rural areas, they could have a significant effect on the tax liabilities and the earned income tax credit benefits of rural residents. *[Ron L. Durst, 202-219-0896, rdurst@econ.ag.gov]*

Some Regulatory Changes Underway; Others Still to Be Enacted

A major overhaul of Federal regulations is underway. Recent regulatory changes that promise to have the greatest effect on rural areas include those involving credit institutions, natural resources and the environment, and electricity and telecommunications. Many, although not all, of these changes involve deregulation.

The 104th Congress kicked off its effort to deregulate the economy and reinvent the Federal regulation-making process, beginning in early 1995 with the unfunded mandate legislation that makes it more difficult for Congress to create new regulations that impose significant costs on State and local governments without compensating them with additional Federal funds. The Telecommunications Act of 1996 represents the most significant deregulation legislation passed by Congress thus far. Many other major regulatory changes were proposed. Some were enacted, others were not, but may be considered in the future. This latter category includes the regulatory reform bill that would make it more difficult to establish new Federal regulations, the regulatory flexibility bill that would ease regulations on small businesses, the proposed overhaul of labor safety regulations, the reform of environmental laws, and legal reform. Nevertheless, many changes in rules and regulations have already been brought about in the last year, some by Congress, others by the administration or the courts, and some may significantly affect rural areas. Not all of these changes involve deregulation.

New Regulations Lead to Significant Changes in Credit Available to Rural Areas

In 1995, the Federal Reserve Board and the other bank and savings and loan regulators revised the regulations for the Community Reinvestment Act (CRA), which encourages banks and savings and loans to help meet the credit needs of their communities, including low- and moderate-income neighborhoods, consistent with safe and sound operations. CRA's regulations were revised to increase lending in underserved areas while reducing regulatory costs for affected financial institutions. Revised regulations went into effect in January 1996, making it easier for small financial institutions to comply with CRA exams. Large finanacial institutions are not required to be tested under the new CRA exams until July 1997; although they had to begin collecting new loan data on January 1, 1996. Revised rules require larger banks to report separately small business lending data for their rural market areas. These changes may encourage an increase in rural lending in places served by large banks and reduce compliance costs for small banks serving rural areas.

To provide additional incentives to banks and other institutions that provide credit to low-income areas, Congress enacted a modified version of a Clinton administration initiative to fund a series of community development financial institutions (CDFI). CDFI funding was set at $382 million over 4 years, but actual obligations have been well below authorized funding levels. One-third of the funds are meant to go to existing banks as rebates of deposit insurance premiums for doing a good job of servicing low-income areas. The CDFI legislation also reduces the regulatory burden for banks. This may help rural banks lower interest rates on loans and sell loans to other investors, and it leaves rural bankers with more time to make loans.

Proposed, but not enacted, were major revisions to the Glass-Steagall Act. This act limits bank activity in the insurance and securities industries. If Glass-Steagall is altered significantly, it could open up access to a wide array of bank financial services that could benefit nonmetro areas.

The Farm Credit System Reform Act, signed into law in February 1996, reforms both the Farm Credit System (FCS) and the Federal Agricultural Mortgage Corporation (Farmer Mac), two Government-sponsored enterprises (GSE's) that provide credit assistance for agricultural and rural housing borrowers. This legislation decreases the regulatory burden for FCS institutions, which should lower their operating costs and could be passed along to agricultural borrowers in the form of lower cost credit. The Farm Credit Administration, which oversees FCS, proposed additional changes that would allow FCS to increase its lending to nonfarm rural housing, processing and marketing operations, and farm-related businesses.

Farmer Mac, which provides a secondary market for agricultural real estate and home mortgages, has been modified in an attempt to lower costs, grant regulatory relief from higher pending capital standards, and provide guidelines for recapitalization. Farmer Mac's new charter allows it to purchase loans directly from lenders and either hold purchased loans in portfolio or sell them as mortgage-backed securities.

The Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac) are the GSE's that are the major intermediaries in the secondary market for home mortgages. Their principal activity is purchasing home mortgages from lenders, grouping these into mortgage pools, and issuing financial securities for shares of income streams generated by these pools. This allows them to reduce risk and associated interest costs for home loans.

The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 required both of these GSE's to meet specific goals, including the goal that they should focus more activity in "housing located in central cities, rural areas, and other underserved areas." HUD was given oversight authority, and it recently set the goal that 24 percent of the dwelling units financed by both of these GSE's should be in underserved areas. HUD defined 1,511 of the Nation's 2,305 nonmetro counties (having 54 percent of nonmetro population) as underserved. As of 1994, only 8.7 percent of Fannie Mae's loans and 13.4 percent of Freddie Mac's had been in these underserved areas, thus GSE housing assistance to underserved rural areas may be expected to substantially increase in the future in order to meet the 24 percent goal. *[George Wallace, 202-501-6751, gwallace@econ.ag.gov, and Jim Mikesell, 202-219-0098, mikesell@econ.ag.gov]*

Environment and Natural Resources Regulations Beginning to Change

Regulations covering the environment and natural resources were a topic of much debate in 1995 and 1996. Although Congress has proposed to reduce or alter most environmental regulations, many regulatory issues were unresolved, including those involving the Superfund for hazardous wastes, the Clean Air Act, the Clean Water Act, the Coastal Zone Management Act, the Endangered Species Act, and the Atlantic Striped Bass Conservation Act.

Some significant changes have already been enacted covering natural resource management. The 1995 rescissions act, for example, required the Forest Service to accelerate its logging of dying and diseased trees. This act also waived compliance with certain environmental regulations and insulated timber sales from some legal challenges. These changes will particularly affect the Pacific Northwest and northern California. The recent Omnibus Spending Act of 1996, however, gave the President the option to waive additional timber cutting in Alaska's Tongass National Forest. This legislation also allowed the President to ignore the moratorium that Congress earlier imposed on additions to the endangered species list.

The General Mining Law of 1872 that regulates the exploration and extraction of minerals from Federal lands has been targeted for reform by those who want to end the sale of Federal lands and increase fees on mining companies and impose stricter mine reclamation requirements. To date, action on these goals has been generally limited to a continuation through fiscal year 1996 of the moratorium on land patents under the 1872 General Mining Law, which lets companies take possession of mineral-laden public lands for as little as $2.50 per acre and a continuation of the long-standing moratorium on offshore oil and gas leasing.

EPA has revised some of its policies to provide more flexibility for environmental enforcement for small communities (under 2,500 residents). For example, in its November 1995 Policy on Flexible State Enforcement Responses to Small Community Violations, EPA expressed its support for State flexibility in using compliance incentives for small communities. This policy recognizes that environmental benefits can be achieved by negotiating with communities and entering into legal agreements that specify a reasonable timetable for compliance in exchange for relief from EPA penalties. Another EPA ruling that could significantly affect rural areas, particularly corn-growing areas that provide inputs to ethanol production, involves provisions of the Clean Air Act that require the use of reformulated gasoline in areas with high levels of air pollution. In March 1996, EPA raised the maximum level of ethanol allowed in reformulated gasoline—from 7 to 10 percent. *[Cecil Davison, 202-501-6716, cdavison@econ.ag.gov; Walt Gardiner, 202-219-0545, wgardiner@econ.ag.gov; Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Telecommunications and Electric Industries Are Being Deregulated

On February 8, 1996, President Clinton signed into law the Telecommunications Act of 1996. The legislation is the first comprehensive rewrite of the Communications Act of 1934 and covers five major areas: telephone service, telecommunications equipment manufacturing, cable television, radio and television broadcasting, and the Internet and online computer services. In each of these areas, the act relaxes concentration and merger rules, eliminates cross-market entry barriers, and assigns new implementation obligations to the Federal Communications Commission (FCC). The act, as a result, modifies previous legislation, such as the Cable Act of 1992, and judicial actions, such as the early 1980's consent decree in the breakup of American Telephone and Telegraph (AT&T). The ultimate purpose of the act is to allow much quicker adoption of new technology and discontinuance of outmoded technology. U.S. West's proposed purchase of Continental Cablevision is the first major restructuring in the telecommunications industry to result from the legislation.

For rural areas, the act's provision calling for universal service is most critical. Universal service denotes the type of telecommunication service that must be provided to everyone at some maximum cost to the purchasers of the service. The new legislation ushers in a new standard for universal service and, for the first time, allows the definition of universal service to evolve (without further legislation) so that there can be more ready adaptation to future changes in technology and market. The act, however, does not set the new standard, but provides for a Federal-State Joint Board that will be appointed by the FCC to determine what will constitute universal service. The Federal-State Joint Board will make recommendations to the FCC by November 1996. The FCC will issue its order on universal service during May 1997.

Since the breakup of AT&T in the early 1980's, the Universal Service High Cost Fund covered the subsidy for universal service. All long-distance telecommunications providers contributed to the fund. The new act requires all telecommunication providers to contribute to a fund that will subsidize the provision of universal service. As a consequence, it is foreseeable that some time in the future Internet access may become part of universal service, and Internet access providers may be required to contribute to the universal service fund. Without knowing what will constitute universal service, however, no determination can be made as to who in rural areas will benefit from the law, who will pay for the subsidy, how much they will likely pay, and myriad related questions.

Another potentially far-reaching regulatory change involves the electric industry. Since the the passage of Energy Policy Act of 1992, the Federal Energy Regulatory Commission has required public utilities to open their transmission lines and lease them to competitors, which should enable more utilities to sell power across State boundaries and beyond their traditional service areas. New rules, proposed in April 1996, would change the way electricity is sold at the wholesale level. New energy service companies are expected to become efficient middlemen in buying electricity from producers and selling it to consumers. Legislation has been proposed that would expand deregulation to cover the retail market, requiring utilities to give customers a choice of electricity providers by the year 2000. These new rules are aimed at improving efficiency and lowering rates by increasing competition among electric utilities and independent wholesale power generators. Some States have already moved to deregulate the electric industries within their States, but Federal regulations are required to deal with interstate issues.

How this will affect rural areas is unclear. *[Peter Stenberg, 202-219-0543, stenberg@econ.ag.gov, and Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Some Other Regulatory Changes Have Rural Implications

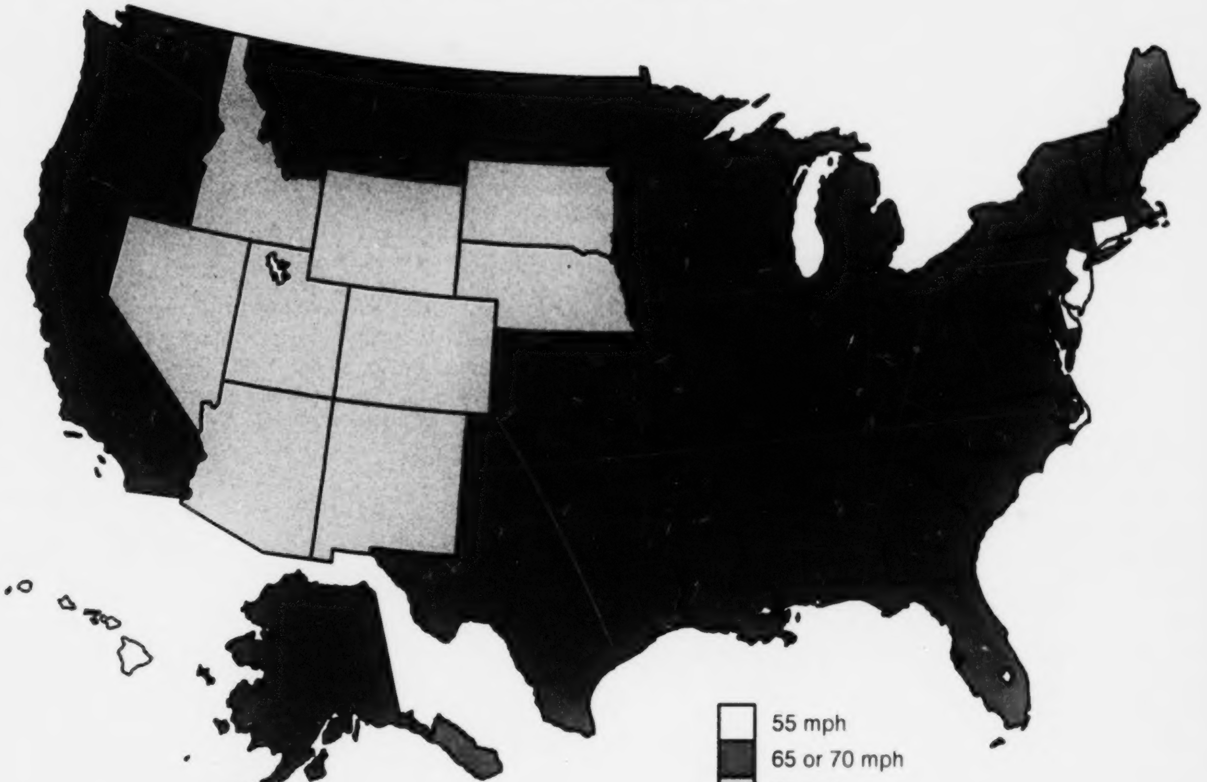
The legislation that created the 161,000-mile National Highway System, P.L. 104-59, allows States to increase their maximum speed limits. This is expected to reduce travel time to many rural areas and may make many remote rural counties more economically competitive, especially in parts of the West, where significantly higher limits have already been adopted (fig. 1).

The March 1996 Supreme Court ruling in Seminole Tribe of Florida v. Florida limited the ability of Indian tribes to sue States over tribal rights to set up gambling operations. This could limit the growth of the Indian gaming industry in States that oppose this activity. Indian gambling operations have helped foster a greater degree of economic self-suffi-

Figure 1

New maximum daytime speed limits, by State, as of May 7, 1996

Limits are highest in the Mountain States and parts of the Upper Plains



Source: Calculated by ERS using data from the American Automobile Association.

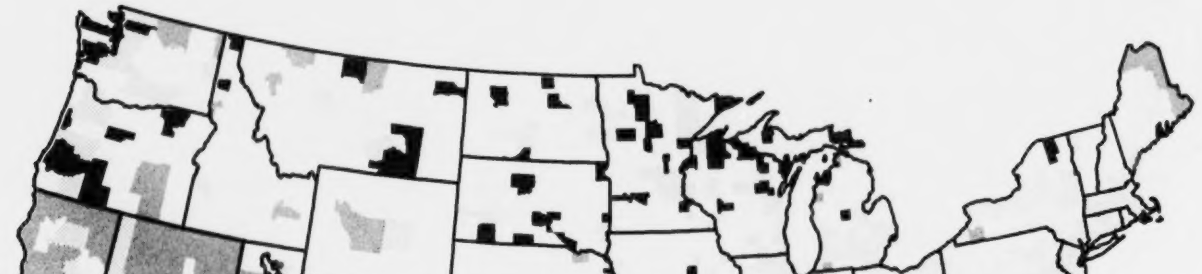
ciency for Native Americans by providing them with a major new source of income and employment. Less than one-fourth of about 560 federally recognized tribes engage in gaming operations, and of these, only about 20 are actually doing well by such activities. Indian gaming is most prominent in the Southwest, the Pacific Northwest, the Upper Plains, and the Midwest (fig. 2).

In January 1996, legislation was enacted that will prevent States from taxing retirement earnings of former State residents. In the past, some States, such as California, have applied source taxes to retirement income generated in the State to raise additional revenues and discourage the outmigration of wealthy retirees, many of whom move to lower tax rural areas. This change might therefore be expected to increase future migration from high-tax urban States to low-tax rural States that are popular retirement destinations. *[Dennis Brown, 202-219-0329, dennisb@econ.ag.gov, and Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Figure 2

Nonmetro counties with one or more federally recognized Indian Tribes and their gaming status, as of December 1995

Nonmetro gaming operations are most common in the southwest, the Pacific Northwest, the Upper Plains, and the Midwest



Note: Each tribe's location is based on the mailing address of its tribal leader.
Source: Calculated by ERS using data from the Bureau of Indian Affairs.

Data Sources

Federal Funds Data: The principal data source we use to indicate geographic dispersion of program funding is the Consolidated Federal Funds Reports data from the U.S. Department of Commerce, Bureau of the Census. We usually refer to these data as the Federal Funds data. Census collects these data annually from each Federal department or agency. We aggregated the data to the county, State, region, and national level for each program for fiscal year 1994. (Unless otherwise specified, references to years are fiscal years.) The Census data for 1994 covered 1,206 individual programs, but not all of these programs had reliable data at the county level.

Each program has individual characteristics that affect the way the data show geographic patterns. For example, funds for many programs go directly to State capitals or regional centers that redistribute the money or program benefits to surrounding areas. Examples include block grant programs and some procurement programs that involve a substantial degree of subcontracting. Census screens the data to identify such programs, and we have added our own screen which separates out those programs which allocate 25 percent or more of their funds to State capitals. We ended up with 719 programs that we believe are fairly accurate to the county level for 1994. For the screened-out programs, we believe it is only meaningful to indicate geographic variations among States but not among counties. Thus, for some of the programs, we provide county maps and statistics, while for others we rely on State maps and statistics.

The benefits of Federal programs do not all go to the places that receive funds. For example, money spent on National parks benefits all who visit the parks and not just those who live where the parks are located. Such spillover benefits are present in almost all Federal programs and are not reflected in the Federal funds data. In addition, different programs affect communities in different ways and have different multiplier effects on local income, employment, and community well-being. Thus, even if the reported funding dispersion is considered to be an accurate depiction of where the funds are spent, care is required when interpreting the data as program effects.

Federal Funds data may represent either actual program expenditures or obligations, depending on the form of the data provided to Census. Direct loans and loan guarantees are reported according to the volume of loans obligated, and do not take into account interest receipts or principal payments. Consequently, these data do not always correspond to program totals reported in government budget documents, such as budget authority, outlays, or obligations (see definitions).

Budget Data: We obtained information on recent changes in program funding levels, such as the level and change in funding from 1995 to 1996, from various sources, including Congressional Quarterly Weekly Report, the President's Fiscal Year 1997 Budget, the 1997 budget summaries provided by major government agencies, Congressional legislation, conference reports, and legislative summaries, and from the most recent Catalogue of Federal Domestic Assistance. In some cases, we contacted budget officials by phone to obtain information.

Population Data: Per capita funding amounts were estimated using 1994 county population estimates from the Bureau of the Census.

Medicare and Medicaid Data: Estimates of Medicare and Medicaid coverage (and related estimates of income and employment) reported in this issue are derived from the March round of the monthly Current Population Survey (CPS) conducted by the Bureau of the Census. The CPS sample includes about 58,000 households that are representative of the U.S. civilian noninstitutional population. The March CPS provides detailed information about individual economic and demographic characteristics, including health insurance, income, and employment during the previous calendar year. The March 1995 CPS was affected by several changes in survey methodology that restricted information about metro-nonmetro differences to half the sample, reducing the reliability of estimates. Information about Medicare expenditures per beneficiary was calculated by the Rural Policy Research Institute (RUPRI), using data provided by the Health Care Financing Administration, U.S. Department of Health and Human Services. Information about physician gross practice revenue was provided by the American Medical Association, based on a national survey of physicians conducted in 1994. Information about community hospital net patient revenue was provided by the American Hospital Association, based on the 1993 Annual Survey of Hospitals.

Definitions

Typologies: Classification systems developed and periodically revised by ERS to group counties and States by economic and policy-relevant characteristics. The county typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR-89, U.S. Department of Agriculture, Economic Research Service, December 1994. The State typology codes were first developed in Elliot J. Dubin, *Geographic Distribution of Federal Funds in 1985*, Staff Report AGES89-7, U.S. Department of Agriculture, Economic Research Service, March 1989, and were revised for this issue.

County Economic Types (mutually exclusive; a county may fall into only one economic type):

Farming-dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Mining-dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Manufacturing-dependent—manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Government-dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Service-dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance and insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years of 1987-89.

County Policy Types (overlapping; a county may fall into any number of these types):

Retirement-destination—The population aged 60 years and older in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land in the year 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, and 1990.

Transfer-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over 3 years of 1987-89.

State Types (the first three types are mutually exclusive; a State may fall into only one category; the remainder are overlapping):

Because many Federal programs do not have accurate county-level data, we developed a State typology to assist in differentiating among types of States and their funding levels. First, we categorized States into three groups (rural, urban, and other) based on the percentage of a State's population residing in urban parts of metro areas. We defined four other types of States: farming-dependent, persistent-poverty, retirement-destination, and Federal lands. In each case, we used the same kinds of measures that were used to construct ERS's county typologies. However, the cutoffs were lowered because States have more internal socioeconomic diversity than most counties.

ERS's State types are defined as follows:

Rural/small town—In 1993, 45 percent or less of the State's population resided in urban portions of the metro areas.

Urban/metro—In 1993, 70 percent or more of the State's population resided in urban portions of metro areas.

Other (neither urban nor rural)—More than 45 percent but less than 70 percent of the State's population in 1993 resided in urban portions of metro areas.

Farming-dependent—In 1991-93, 4 percent or more of the total labor and proprietor income came from farm labor and proprietor income.

Persistent poverty—Fifteen percent or more of a State's persons had income below poverty in 1960, 1970, 1980, and 1990.

Retirement-destination—A State's aged (over 60) population in 1990 increased by 5 percent or more due to net inmigration from 1980 to 1990.

Federal Lands—The Federal Government owns 28 percent or more of total land in the State.

These State types are illustrated in figures 1-5.

Rural States include Alaska, Arkansas, Idaho, Iowa, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, South Dakota, Vermont, West Virginia, and Wyoming.

Urban States include Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Jersey, New York, Rhode Island, Texas, and Utah.

Other States include Alabama, Georgia, Indiana, Kansas, Louisiana, Michigan, Minnesota, Missouri, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, and Wisconsin.

Farm-dependent States include Arkansas, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

Poverty States include Alabama, Alaska, Arkansas, District of Columbia, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, South Carolina, South Dakota, Tennessee, and West Virginia.

Retirement-destination States include Arizona, Florida, Hawaii, Idaho, Nevada, New Mexico, North Carolina, Oregon, South Carolina, Utah, and Washington.

Federal lands States include Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Regions:

Census regions—We used the conventional four Census-defined regions as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and a total area population of at least

100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 Census. Throughout *Rural Conditions and Trends*, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas: These are counties outside metro area boundaries. In *Rural Conditions and Trends*, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Budget Authority: The authority becoming available during the year to enter into obligations that will result in immediate or future outlays of government funds. In some cases, budget authority can be carried over to following years. It can take the form of appropriations, which permit obligations to be incurred and payments to be made, or authority to borrow, or authority to contract in advance of separate appropriations. Supplemental appropriations provide budget authority when the need for funds is too urgent to be postponed until the next regular annual appropriations act.

Obligations incurred: Once budget authority is enacted, government agencies may incur obligations to make payments. These include current liabilities for salaries, wages, and interests; contracts for purchase of supplies and equipment, construction, and the acquisition of office space, buildings, and land. For Federal credit programs, obligations are recorded in an amount equal to the estimated subsidy cost of direct loans and loan guarantees.

Outlays: This is a measure of government spending. Outlays are payments to liquidate obligations (other than repayment of debt), net of refunds and offsetting collections.

Direct loan: This is the disbursement of funds by the government to a non-Federal borrower under a contract that requires repayment, with or without interest.

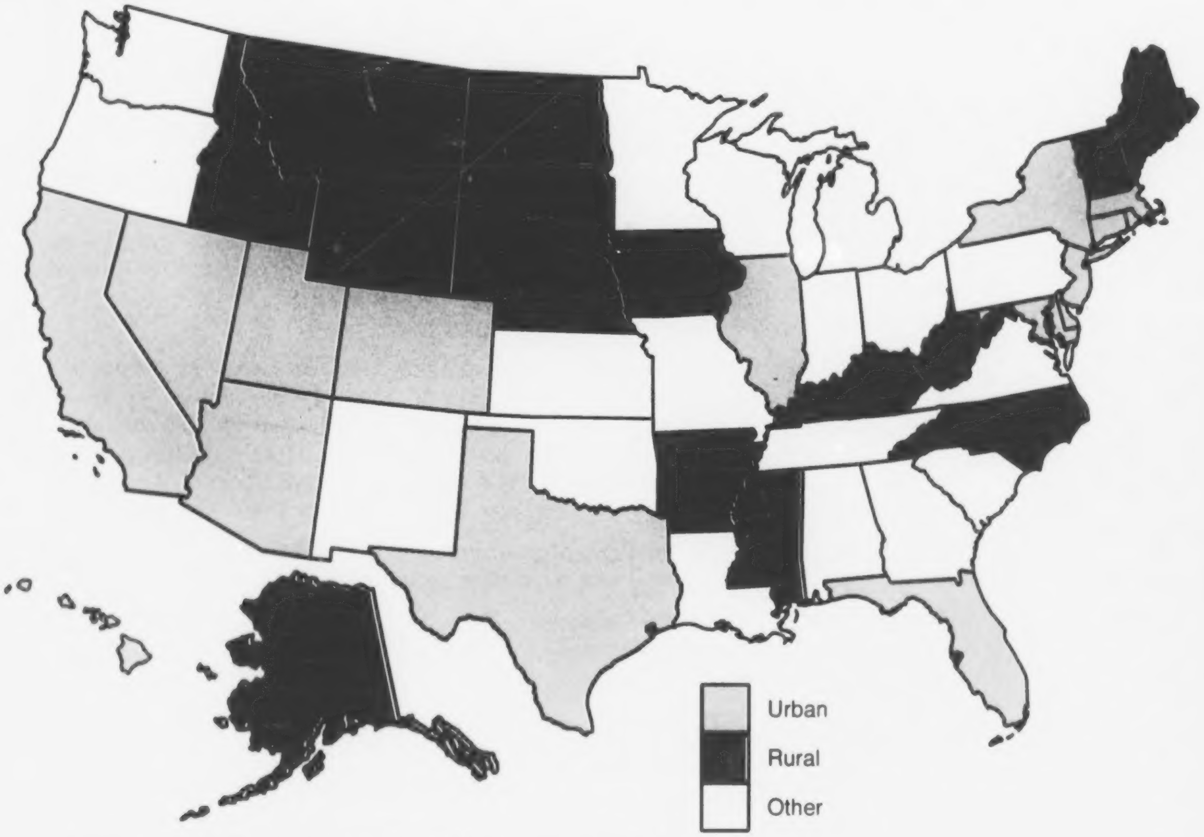
Loan guarantee: This is any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender.

Fiscal year: A fiscal year is the government's accounting period. It begins October 1 and ends September 30, and is designated by the calendar year in which it ends. *[Faqir Bagi, 202-219-0546, fsbagi@econ.ag.gov; Samuel Calhoun, 202-219-0584, scalhoun@econ.ag.gov; and Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Figure 1

Urban-rural typology, 1993

Rural States are mostly in the Northern Plains and the Southeast

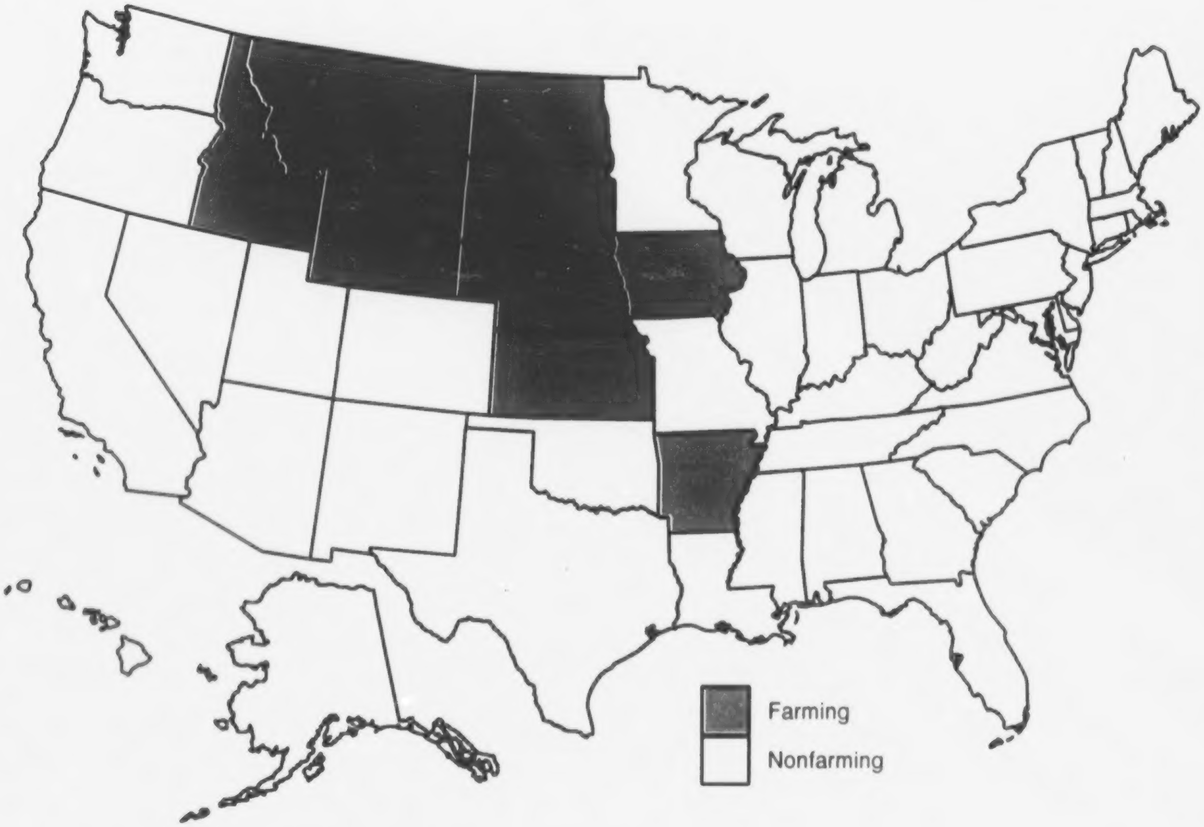


Source: Calculated by ERS using data from the Bureau of the Census.

Figure 2

Farming States, 1991-93

Farming States are concentrated in the Plains

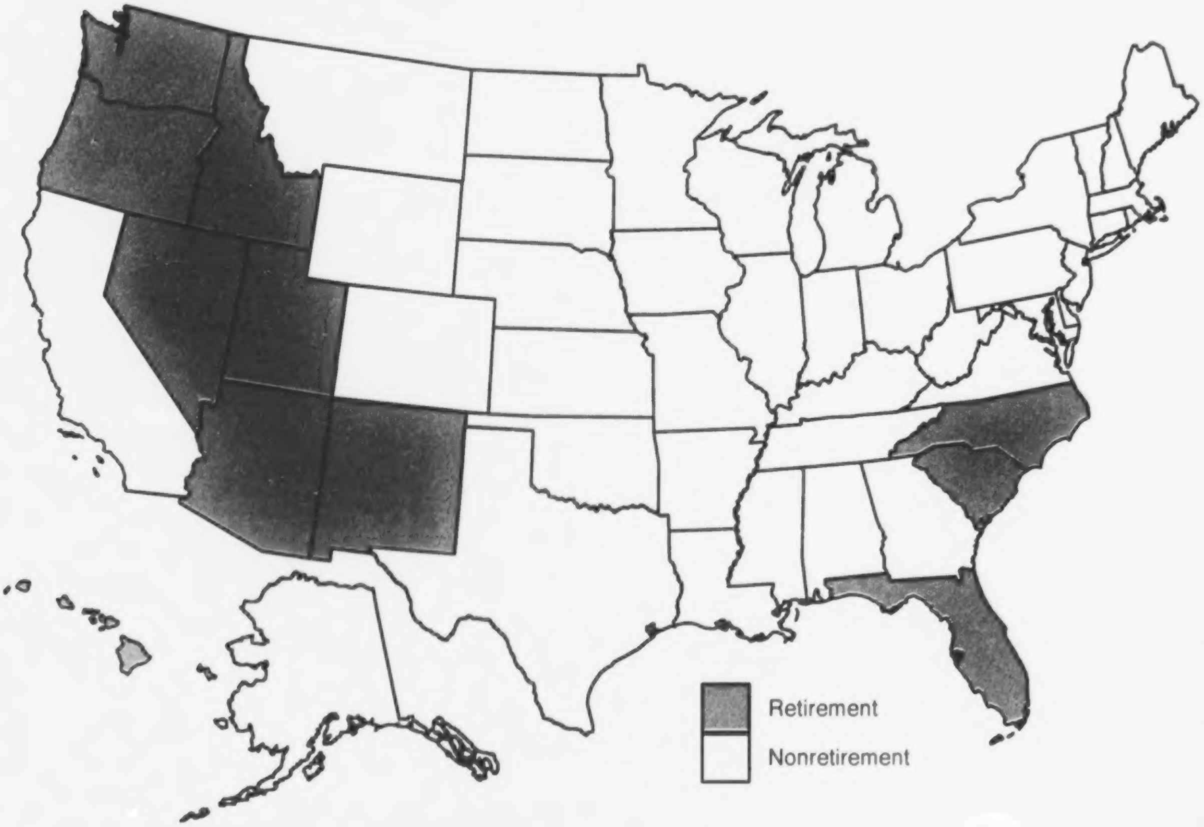


Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Figure 3

Retirement States, 1980-90

Retirement States are concentrated in the West and the Southeast

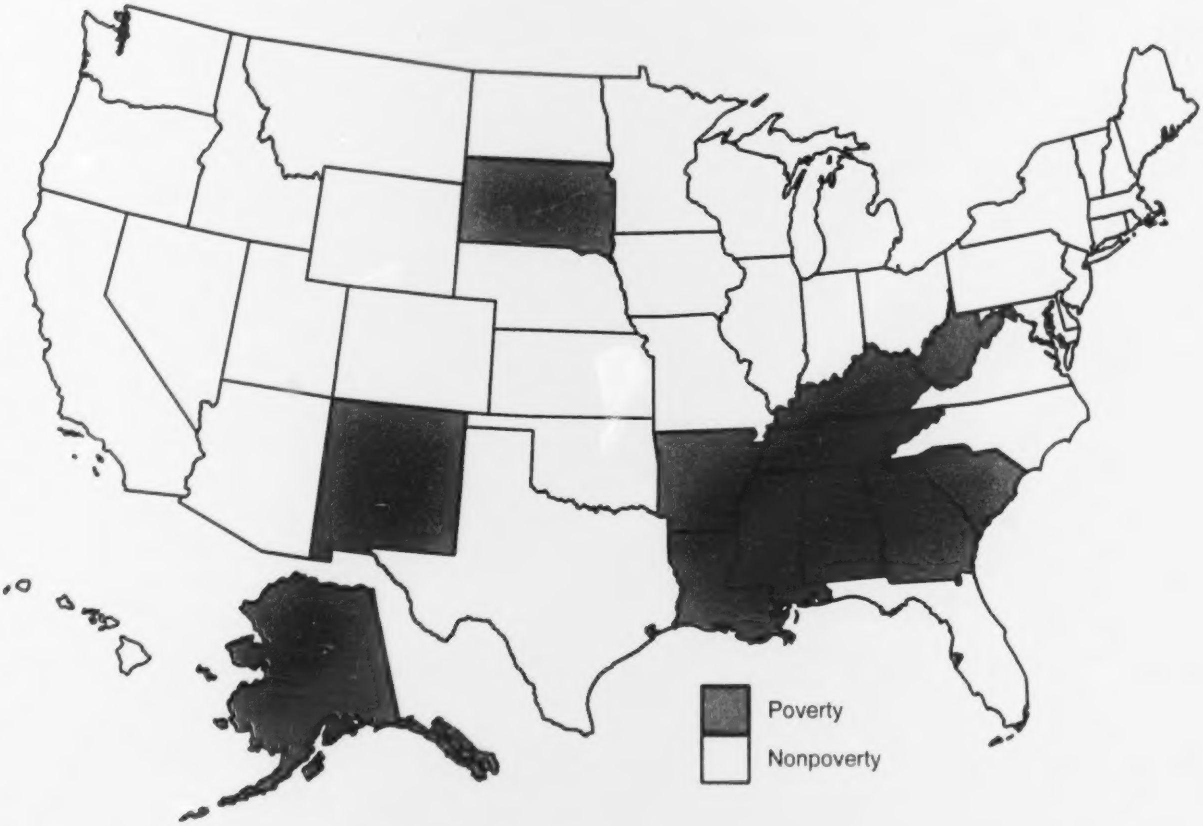


Source: Calculated by ERS using data from the Bureau of the Census.

Figure 4

Poverty States, 1960-90

Poverty States are concentrated in the Southeast

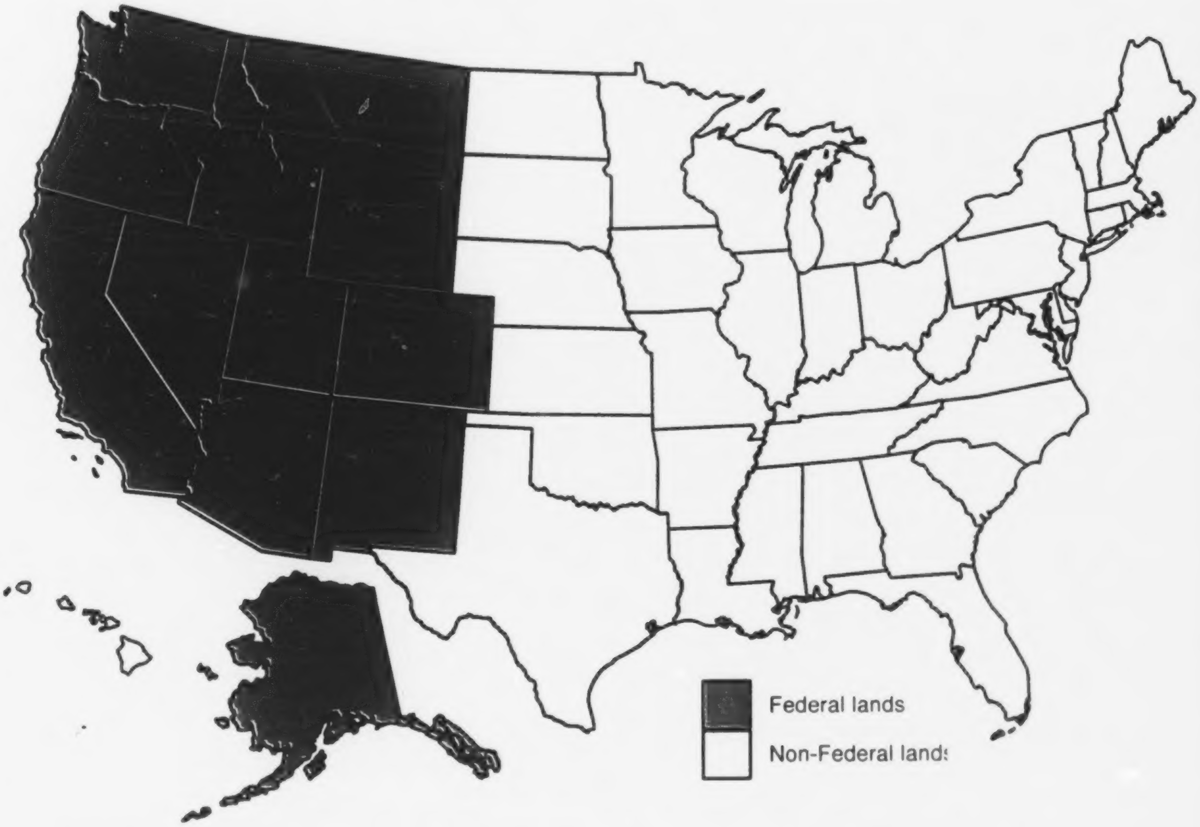


Source: Calculated by ERS using data from the Bureau of the Census.

Figure 5

Federal lands States, 1987

Federal lands States are concentrated in the West


Federal lands
Non-Federal lands

Source: Calculated by ERS using data from the Natural Resources Conservation Service, USDA.

As discussed earlier in appendix A, the budget data reported here are meant to reflect program levels—such as the amount of new loans issued—and do not necessarily correspond to budget authority figures published elsewhere. In some cases, such as income support programs, outlays are presented as more reflective of program levels. In some cases, rescissions are reflected in the numbers. Some program funding information, such as in the Medicare and Medicaid programs, does not include trust fund amounts funded from other sources, hence the funding amounts may increase or decrease dramatically without having a similar affect on program levels. Since the programs vary in type of assistance, such as loans, grants, salary payments, and transfer payments, the amounts for different programs are not directly comparable. Hence, no attempt was made to compute totals or subtotals of programs.

The data for this table come from a variety of sources, including agency budget summaries, the President's Fiscal Year 1997 Budget, the Catalogue of Federal Domestic Assistance for 1996, congressional legislation, conference reports, legislative summaries, and other sources, such as *Congressional Quarterly Weekly Report*. In some cases, we contacted budget officials by phone to obtain information.

The selected programs are not meant to be an exhaustive list. Only those programs that were covered in this issue were included in the table, and of those covered in this issue, some of the smaller, less significant programs were excluded. Nevertheless, we believe this table includes most of the more important programs for rural areas and their development. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Appendix B: Funding Levels for Selected Programs

Appendix table 1—Budget changes for selected programs, fiscal years 1995 to 1996

		Program funding[1]		
Program	Agency[2]	1995	1996	Change[3]
			Billions of dollars	
General development assistance:				
Rural Economic Development Grants	USDA/RBS	0.020	0.020	0
Extension activities	USDA/CSREES	.439	.428	-.011
Resource Conservation and Development Areas*	USDA/NRCS	.033	.029	-.004
Economic Action Grants*	USDA/FS	.016	.015	-.001
Pacific Northwest Supplemental Economic Action Grants*	USDA/FS	.017	.016	-.001
Local Development Districts	ARC	.004	.005	.001
Highway Program	ARC	.133	.197	.064
Area Development	ARC	.101	.092	-.009
Support for Planning Organizations	Commerce/EDA	.022	.019	-.003
Technical Assistance	Commerce/EDA	.011	.010	-.001
Special Economic Development/ Adjustment*	Commerce/EDA	.291	.139	-.152
Small Cities/Community Development Block Grant	HUD	1.300	1.300	.000
Disaster Assistance	FEMA	2.900	1.800	-1.100
Infrastructure programs:				
Water and Waste Disposal Grants and Loans	USDA/RUS	1.340	1.000	-.340
Rural Electrification Loans	USDA/RUS	.910	.940	.030
Rural Telecommunication Loans	USDA/RUS	.410	.490	.080
Community Facilities Loans	USDA/RUS	.230	.280	.050
Payments to States (for Schools and Roads)	USDA/FS	.310	.300	-.010
Public Works Grants	Commerce/EDA	.190	.170	-.020
Telecommunications and Information Infrastructure Assistance (TIIA)	Commerce	.040	.020	-.020
Airport Improvement Grants	Transportation	1.450	1.450	.000
Federal-Aid Highway	Transportation	20.830	20.830	.000
Nonurbanized Area Formula Public Transportation	Transportation	.130	.110	-.020
Essential Air Services	Transportation	.030	.020	-.010
Amtrak	Transportation	.990	.750	-.240
Local Rail Freight Assistance	Transportation	.010	0	-.010
Clean Water State Revolving Fund	EPA	1.200	1.350	.150

See notes at end of table.

—Continued

Appendix table 1—Budget changes for selected programs, fiscal years 1995 to 1996—Continued

Program	Agency[2]	Program funding[1]		
		1995	1996	Change[3]
		Billions of dollars		
Business assistance:				
Rural Business Enterprise Grants	USDA/RBS	0.475	0.450	-0.025
Business and Industry (B&I)	USDA/RBS	.424	.700	.276
Small Business Loan Guarantees 7(a)	SBA	.425	.539	.114
Special Economic Development/ Adjustment Program	Commerce/EDA	.291	.139	-.152
Housing assistance:				
Single Family Housing (Sec. 502)—				
Direct Loans	USDA/RHS	.934	1.016	.082
Guarantees	USDA/RHS	1.049	1.700	.651
Multifamily (Sec. 515)	USDA/RHS	.183	.152	-.031
Loan Guarantees	VA	27.339	31.336	3.937
FHA Mortgage Insurance	HUD	48.508	59.757	11.249
Public and Indian Housing	HUD	2.971	3.184	.213
Natural resources and environmental programs:				
Natural Resources Conservation Service	USDA/NRCS	.832	.859	.027
Forest Service	USDA/FS	3.115	3.355	.240
Fish and Wildlife Service	Interior	.671	.654	-.017
National Biological Service	Interior	.162	0	-.162
Bureau of Mines	Interior	.152	.064	-.088
Army Corps of Engineers	Defense	3.339	3.366	.027
National Park Service	Interior	1.385	1.361	-.024
Operating Programs (total)[4]	EPA	2.970	3.011	.041
State and Tribal Assistance[4]	EPA	2.769	2.155	-.614
Superfund[4]	EPA	1.431	1.311	-.121
Leaking Underground Storage Tank Trust Fund[4]	EPA	.070	.046	-.024
Education and training programs:[5]				
Title I	Education	7.200	7.200	0
Impact Aid	Education	.728	.691	-.037
Star Schools	Education	.025	.023	-.002
Perkins Loans	Education	.176	.113	-.063
Pell Grants	Education	6.147	5.747(2)	-0.400

See notes at end of table.

—Continued

Appendix table 1—Budget changes for selected programs, fiscal years 1995 to 1996—Continued

Program	Agency [2]	Program funding [1] 1995	1996	Change [3]
		Billions of dollars		
Job Training partnership Act				
Title II A-Adult Training	Labor	.996	.850	-.146
Title II B-Summer Youth	Labor	.867	.625	-.242
Title III C-Youth Training	Labor	.127	.127	.000
Title III-Dislocated Workers	Labor	1.229	1.098	-.131
Wagner-Peyser (Employment Service)	Labor	.839	.762	-.077
Job Corps	Labor	1.042	1.042	.000
Health programs:				
Medicare [6]	HHS	180.100	197.400	17.300
Medicaid	HHS	89.100	94.900	5.800
Income support programs: [7]				
Social Security (OASDI)	HHS	335.800	351.000	15.200
Aid to Families with Dependent Children (AFDC)	HHS	17.100	17.400	.300
Supplemental Security Income (SSI)	HHS	25.600	26.600	1.000
Food Stamps	USDA	25.600	26.300	.700
Child nutrition (mainly the School Lunch and School Breakfast Programs)	USDA	7.500	8.200	.700
Defense (total):	Defense	272.000	266.000	-6.000
Agriculture programs:				
Deficiency payments	USDA	3.900	[8]	[8]
Production flexibility contract payments	USDA	[9]	5.570	[9]
Conservation Reserve Program	USDA	1.738	1.836	.098
Trade and export promotion:				
CCC Export Credits [10]	USDA	2.949	5.700	2.751

See notes at end of table.

—Continued

Appendix table 1—Budget changes for selected programs, fiscal years 1995 to 1996—Continued

Program	Agency [2]	Program funding [1] 1995	1996	Change [3]
			Billions of dollars	
Market Access Program (MAP)	USDA	.110	.090	-.020
Export Enhancement Program (EEP) [11]	USDA	.800	.959	.159
P.L. 480 Program	USDA	1.286	1.187	-.099
Social services programs:				
Child Care Development Block Grant	HHS	.935	.935	.000
Community Services Block Grant	HHS	.458	.429	-.029
Social Services Block Grant	HHS	2.800	2.800	.000
Aging Services	HHS	.877	.828	-.049
Foster Care and Adoption	HHS	3.600	4.300	.700
Substance Abuse	HHS	1.700	1.400	-.300
Native American programs:				
Bureau of Indian Affairs (BIA) (Total)	Interior	1.730	1.570	-.160
Indian Health Service (IHS) (Total)	HHS	2.160	2.210	.050
Indian Education Program	Education	.080	.050	-.030
Indian Housing Development Program	HUD	.200	.160	-.040

* These programs also appear elsewhere in this table as all or part of other programs.

[1] Budget authority, outlays, or loan or loan guarantee program levels are used, depending on the program (see text).

[2] The following agency acronyms are used in this table: USDA=U.S. Department of Agriculture; RBS=Rural Business-Cooperative Service; CSREES=Cooperative State Research, Education, and Extension Service; NRCS=Natural Resources Conservation Service; FS=Forest Service; ARC=Appalachian Regional Commission; EDA=Economic Development Administration; HUD=U.S. Department of Housing and Urban Development; FEMA=Federal Emergency Management Agency; RUS=Rural Utilities Service; EPA=Environmental Protection Agency; SBA=Small Business Administration; RHS= Rural Housing Service; VA=U.S. Department of Veterans Affairs; HHS=U.S. Department of Health and Human Services; CCC=Commodity Credit Corporation.

[3] Change is for fiscal years 1995 to 1996.

[4] 1995 amounts are prerescission.

[5] Includes unspent funds carried over from previous years.

[6] Excludes Medicare beneficiary part B premiums.

[7] Income support programs are represented by outlays.

[8] Deficiency payments, authorized by the 1990 farm legislation, were discontinued in 1996.

[9] Production flexibility contract payments were first authorized in the 1996 farm legislation. They replace the income support payments tied to farm prices (deficiency payments).

[10] Includes short-term (GSM-102) and intermediate-term (GSM-103) guarantees. The increase does not reflect a change in the authorization level. It reflects the fact that program activity in 1995 was less than the amount authorized, while the 1996 estimate assumes that program activity will rise to the authorization level.

[11] The increase does not reflect a change in authorization, but the fact that program activity in 1995 was less than authorized.

Source: U.S. Department of Agriculture, Economic Research Service, based on various published and unpublished Federal Budget reports in 1996.

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Socioeconomic Conditions

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Rural Conditions and Trends

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Rural Areas Show Signs of Revitalization

According to post-1990 indicators, favorable changes in population, employment, and income signal widespread improvement in economic performance across rural areas, although the rural-urban gaps in income and earnings remain large.

This issue of *Rural Conditions and Trends* (*RCaT*) provides the annual review of current conditions in the Nation's rural areas that reflect the socioeconomic well-being of rural communities and the people who live there. It also examines the nature and direction of rural trends in the 1990's and their prospects for continuation during the remainder of the decade. *Rural Conditions and Trends* last reported on socioeconomic conditions and trends in rural America in its Spring 1995 issue based on indicators for circa 1990-93 (Vol. 6, No. 1). The analysis presented in that issue cautiously pointed to a possible revitalization of rural areas following a decade of widespread economic stress and population decline. Based on the most recent indicators available, this issue shows that rural areas are experiencing widespread population growth and improved economic performance during the first half of the 1990's, providing further credence to the argument that rural America as a whole is undergoing an economic and population revival (table 1). Yet, even in the face of a possible rural revival, the levels of income and earnings from nonfarm jobs in rural areas continue to lag those in urban areas.

Most of the articles in this issue update analysis reported in the Spring 1995 issue, although depending on data availability, some base their analyses on different data sources. For example, the articles dealing with the nonfarm earnings and personal income primarily use county estimates from the Bureau of Economic Analysis rather than data from the Current Population Surveys on workers' earnings or household incomes. Depending on data availability, time periods for the analyses may vary slightly. This issue also includes an article that uses county migration data from the Internal Revenue Service to analyze the dynamics of intercounty inmigration and outmigration patterns. Two articles report on the socioeconomic status of segments of the agricultural population. The main themes that emerge from this issue's articles are highlighted below.

Rural Population Growth in the 1990's Rivals That of the 1970's

The lead article reports that during 1990-95, the population living in rural and small towns increased by 1 percent per year—or a net gain of 2.6 million people—with about half (1.3 million people) resulting from net inmigration. The excess of births over deaths accounts for 40 percent of the increase while international net migration accounts for the remainder. Rural population growth during the 1990's compares favorably with that of the 1970's rural turnaround when rural population growth surpassed urban growth.

Many more nonmetro counties are experiencing population growth in the 1990's than in the 1980's (fig. 1). Over 75 percent of nonmetro counties had population growth, up from 44 percent in the previous decade (see the Spring 1995 issue of *RCaT*, Vol. 6, No.1, p. 6.) One-third of nonmetro counties are growing faster than the national average. Furthermore, the rebound in rural population growth is widespread, extending across all regions in the country. Nearly 90 percent of nonmetro counties in the West had increases in population that accounted for one-third of all nonmetro growth. Even the Central region (primarily the Great Plains and Corn Belt), where the rural population declined 4 percent during the 1980's, experienced rural population growth in the 1990's, including some from the inmovement of people.

According to the article on migration patterns, changes in the balance between inmigration and outmigration help explain the revival of nonmetro population growth in the 1990's when more people overall moved into nonmetro areas than moved out. However, the balance of inmigration and outmigration varies from one rural place to another causing some rural areas to grow rapidly, some to grow modestly, and others to decline. For example, nonmetro counties with rapid population growth during the 1990's had both high rates of inmigration and outmigration. Despite similar rates of inmigration, other nonmetro counties experienced either modest population growth or population decline during the 1990's

Table 1

Indicators of nonmetro economic performance

Most population and economic indicators point to improved socieconomic conditions during the 1990's despite wide rural-urban gaps in income and earnings

Item		Item	
	Percent		Percent
Annual population change:		Annual employment change:	
1990-95	0.95	1990-95	1.6
1980-90	.26	1980-90	.9
Inmigration rate:		Average unemployment rate:	
1993-94	6.6	1990-95	7.1
1988-89	6.2	1980-90	8.8
Outmigration rate:		Annual change in earnings per nonfarm job:	
1993-94	6.0	1990-94	.6
1988-89	6.2	1980-90	-.6
Net migration rate:		Annual change in per capita income:	
1993-94	.6	1990-94	1.3
1988-89	0	1980-90	1.4
Poverty rate:		Annual change in per capita transfers:	
1994	16.4	1990-94	4.3
1989	15.7	1980-90	2.6
1979	13.6		
	1994 dollars		1994 dollars
Per capita income:		Rural-urban gap in per capita income:	
1994	16,964	1994	-5,918
1990	16,117	1990	-6,262
1980	13,954	1980	-4,971
Earnings per nonfarm job:		Rural-urban gap in earnings per nonfarm job:	
1994	21,826	1994	-8,093
1990	21,294	1990	-7,586
1980	22,639	1980	-5,465
Per capita transfers:		Rural-urban gap in per capita transfers:	
1994	3,560	1994	57
1990	3,007	1990	54
1980	2,330	1980	-103

Source: Other articles and appendix tables in this issue.

because of differing rates of outmigration (fig. 2). In 1993-94, all economic types of nonmetro counties had a net influx of population because their rates of inmigration exceeded their rates of outmigration.

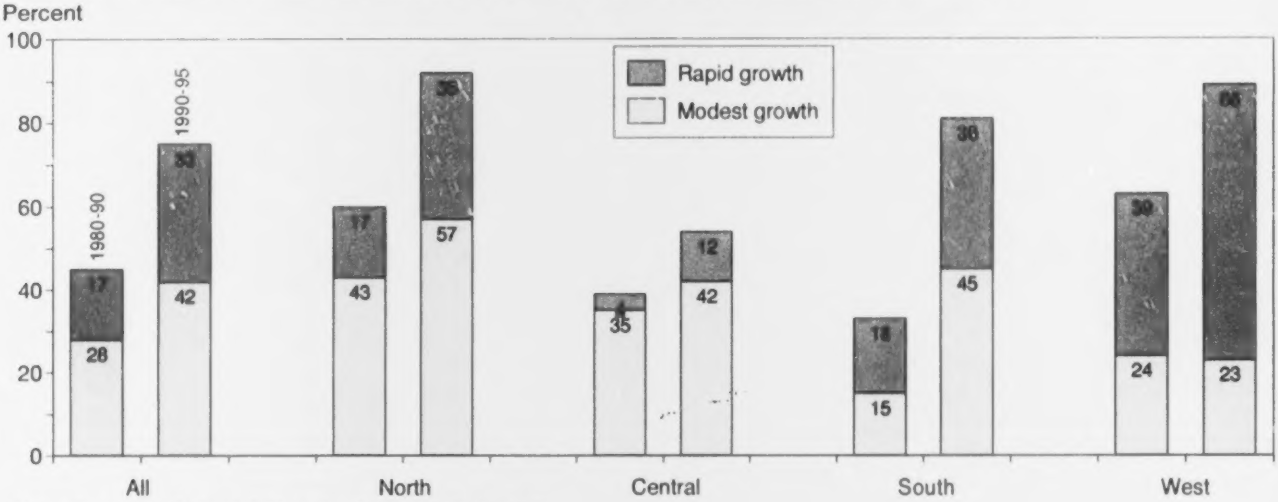
Improved Economic Performance Is Widespread Across Rural Areas

All of the articles reporting indicators of economic performance indicate that the rural economy as a whole is performing considerably better in the first half of the 1990's than in the l980's. Average annual employment growth is up (1.6 percent per year versus 0.9

Figure 1

Share of nonmetro counties with increasing population by region, 1980-90 and 1990-95

Many more nonmetro counties experienced population growth during the nineties than the eighties

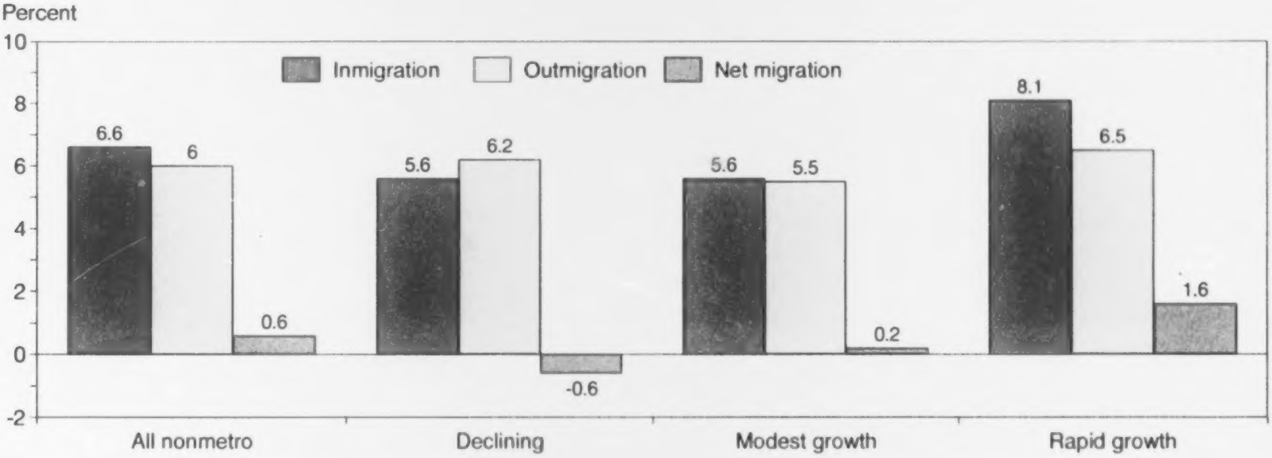


Note: See appendix for definition of rapid and modest growth.
Source: Calculated by ERS using data from Bureau of Census.

Figure 2

Migration to and from nonmetro counties by county population growth types

During 1993-94, the interplay of inmigration and outmigration shaped different patterns of net migration



Note: See appendix for definitions of rapid and modest growth.
Source: Calculated by ERS using data from from the Internal Revenue Service.

percent), while annual average unemployment is down (7.1 percent versus 8.8 percent). In 1995 alone, the average nonmetro unemployment rate fell half a percentage point, reaching 6.2 percent—the lowest point since 1979. After a decade of decline, rural real earnings per nonfarm job appear to be on the rise, even growing at a faster pace than urban earnings per job. Real per capita income grew at a modest overall pace during the 1990's, albeit at a slower pace than during the 1980's, reflecting the effect of a decline in rural per capita income during the 1990-91 recession. During 1991-94, rural per capita income actually rose about 2.0 percent per year—faster than in the 1980's and approaching the income growth of the 1970's. Based on all indicators, the effects of improved economic performance are also widely benefiting rural counties in all regions and county types, though the benefits are stronger in some areas than in others.

. . .But Not Across All Rural Residents

All groups of rural residents are not participating equally in the benefits of improved economic performance. Despite a slight decline during 1993-94, the percentage of rural people with poverty-level income in 1994 remains higher than in 1979 and 1989. And income gains from improved economic performance are distributed unequally across rural households. In 1994, average household income grew fastest among the two-fifths of rural households with either the highest or lowest incomes, but grew more slowly among middle income households.

The socioeconomic status of farm operator households compares favorably with that of other U.S. households in both nonmetro and metro areas. In 1994, the average income of all farm operator households was about the same as that of other households, and average incomes of commercial farm operator households surpassed that of other households. Conversely, the socioeconomic status of hired farmworkers is deteriorating. Not only do hired farmworkers earn significantly less than most other workers, but real weekly earnings for full-time farmworkers fell 7 percent during the 1990's as a result of declining demand and continuing immigration of illegal aliens into the country to do farmwork.

. . .And Rural-Urban Gap In Income and Earnings Remains Wide

Even in the face of rural revival, rural areas continue to lag urban areas in important ways. During the 1990's, the rural-urban gap in real per capita annual income remained approximately $6,000 or greater while rural nonfarm jobs in 1994 paid $8,093 per job less than urban jobs. Even with the rural revitalization of the 1990's to date, the rural-urban gap in real earnings per nonfarm job is wider now than it was in either 1990 or 1980. Rural economies also rely more heavily on transfer payments as a source of income than urban economies. In 1994, per capita transfer payments made up 21 percent of rural personal income compared to 15 percent of urban personal income.

National macroeconomic and demographic changes will affect the extent to which the rural population and economic gains reported in this issue continue into the second half of 1990's and beyond. However, the ability of State and local communities to deal with the challenges of building and sustaining strong rural economies is vitally important as well. *[Peggy J. Cook, 202-219-0095, pross@econ.ag.gov]*

Nonmetro Population Rebound Continues and Broadens

As the decade of the 1990's has progressed, the nonmetro population has received a substantial net influx of people, leading to sharp reduction in the number of counties with population decline. Growth has been especially rapid in recreation, retirement, and metro-adjacent communities, but has also affected the more traditional manufacturing, farming, mining, and mixed economy areas that are not close to metro places. The pattern is increasingly similar to the nonmetro growth that prevailed in the 1970's.

The broad revival of population growth in rural and small town areas that became apparent after 1990 continued in the year ending July 1, 1995. In this most recent 1-year period with available data, the estimated rate of nonmetro population increase (1.0 percent) was slightly above that in metro areas (0.9 percent), similar to the pattern of the 1970's.

For the first half of the 1990's as a whole, the nonmetro population rose by 5.1 percent, (2.6 million people), or nearly twice the growth of the entire 1980-90 decade (table 1). Metro growth was 5.8 percent. Nonmetro residents are currently 20.4 percent of the total U.S. population. While 3.8 million people moved from abroad into metro areas, a net of 1.3 million others moved from metro to nonmetro areas.

All Types of Counties and Regions of the Country Affected

The rebound in rural and small town growth since 1990 has been very pervasive. It is not confined to certain types of counties or to a few areas. Although there were still 562 nonmetro counties that had some degree of population decline from 1990-95, their rate of loss was not as rapid as in the 1980's. All broad economic classes of counties (farming, manufacturing, mining, government, services, and nonspecialized) had higher population growth, as did other types such as retirement or recreation areas, commuting counties, and those with persistently high poverty levels. Remarkably, all of these county types experienced some of their growth through net inmovement of people.

At the national level, 1.3 million more people moved from metro America into rural and small town areas than moved in the opposite direction in 1990-95—a pattern of domestic net population flow contrary to that of any other time in the 20th century except for the 1970's and possibly the first half of the 1930's. In metro areas, the domestic outflow was much more than compensated for by the net inmovement of 3.8 million people from other countries. Nonmetro areas received only 4 percent of the net influx of people from abroad. Immigration, plus a sizable excess of births over deaths, allowed the metro population to increase at a modestly faster rate than the nonmetro population in 1990-95, despite the net outflow of people to rural and small town locations.

The sources of growth in nonmetro counties were 50 percent from domestic inmigration, 40 percent from the excess of births over deaths, and 10 percent from immigration from outside the United States, including the return of American citizens from abroad. By contrast, metro growth stemmed 75 percent from excess of births and 25 percent from all

Table 1

Population change by county growth types, 1980-95

Nonmetro people have been three times as likely to live in rapid-growth counties since 1990 as in declining ones

Type	Counties by 1990-95 growth	Population 1995	Population 1990	Population 1980	Change 1990-95	Change 1980-90	Change 1995-95	Change 1980-90
	Number	Thousands					Percent	
Total	3,105	262,755	248,718	226,542	14,037	22,176	5.6	9.8
Nonmetro	2,292	53,489	50,903	49,577	2,586	1,325	5.1	2.7
Declining	562	6,929	7,118	7,712	-188	-595	-2.6	-7.7
Modest growth	965	25,794	25,103	25,163	691	-59	2.8	-.2
Rapid growth	765	20,765	18,682	16,702	2,084	1,979	11.2	11.9
Metro	813	209,266	197,816	176,965	11,451	20,851	5.8	11.8

Notes: 1993 metro definition. Modest growth is below the national average of 5.6 percent during 1990-95; rapid growth is above it. Number of counties reflects the aggregation of Virginia independent cities with their counties of origin.

Source: Calculated by ERS using data from the Bureau of the Census.

migration, with over 30 percent of growth from international exchange offset by domestic outmigration to nonmetro places. Thus, nonmetro and metro America continue to differ widely in their components of population change, but in a manner different from the past when so much farm-to-city movement took place.

A Majority of Growth Is Going into Rapid-Growth Areas

A third of the nonmetro counties grew at a rate higher than the Nation as a whole (5.6 percent) from 1990-95, and such counties had three-fourths of all nonmetro growth. These counties are most prevalent in a broad swath of mountains and interstitial plateaus and valleys extending from the northwest Rockies to the Mexican border. Other smaller but more densely settled areas of above-average population growth are found in the Ozarks, the lake country of the Upper Midwest, in Florida, the Blue Ridge Mountains, and on the outskirts of thriving metro areas.

The most rapidly growing county type consisted of counties with amenities that attract retired people sufficiently to be classed as retirement destinations (13.8-percent increase). Although these counties had just 10 percent of the nonmetro population in 1990, they attracted 46 percent of the net migration into nonmetro areas. It is important to note, though, that most of the growth in retirement counties consists of young and middle-aged people, attracted to the same amenities that appeal to retirees.

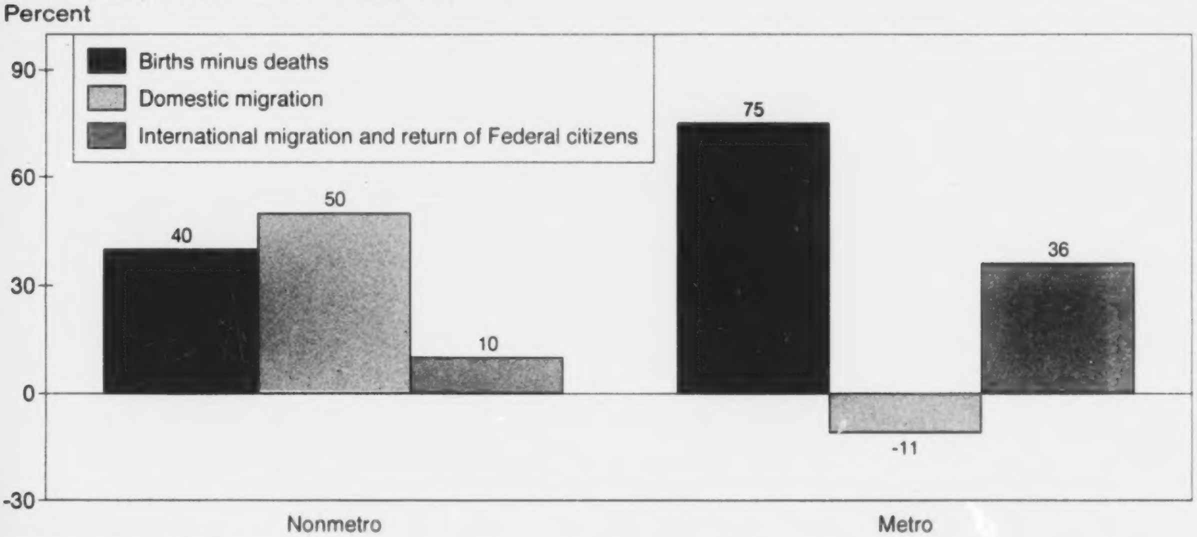
The broad middle range of nonmetro counties that experienced growth at a slower pace (less than 5.6 percent), contains nearly half of the nonmetro population. The economies of these counties typically depend on manufacturing or government jobs, or are unspecialized, with employment in various industries, such as a mix of manufacturing, services, and commercial farming. In the 1980's, these counties had seen a slight overall loss of population.

Despite the general broad rebound of rural population growth, about 25 percent of the nonmetro counties had population decline. In most cases, the loss was a continuation of past trends, but with relatively modest rates of recent loss compared with the past. The declining counties averaged only half the size of growing counties (less than 13,000 residents vs. 25,000), and during 1990-95 less than a seventh of the nonmetro population lived in areas where the population was decreasing. These areas are located disproportionately in the Great Plains and Corn Belt, plus the Mississippi Delta and scattered mining districts. Half of them are experiencing more deaths than births.

Figure 1

Sources of population growth, 1990-95

Nonmetro population increase has depended primarily on migration, while most metro growth has come from the surplus of births over deaths



Source: Bureau of the Census.

Despite Growth, "Natural Decrease" of Population Has Become More Common

One of the more notable features of nonmetro population change since 1990 is the large number of counties estimated to have had more deaths than births, despite the national rebound in nonmetro growth. The existence of "natural decrease" of population is not new in rural areas that have seen many young people of childbearing age move away or that have had retired people move in. It has been observed in some areas since the 1960's, but it has become more common. By 1990-95, a fourth of nonmetro counties had this condition. Usually it stems from a shortage of young families rather than an influx of retirees.

In counties having outmigration, natural decrease has been typically only a minor element in overall population loss. But, with rural outmigration having widely moderated or even ended in so many places since 1990, there are about 100 current or former farming-dependent counties in which natural decrease is now the principal source of remaining decline or more than offsets a modest trend of net inmigration. Where inmovement of working-age people occurs, such growth will act to correct the distortion of rural age composition over time by buttressing the childbearing population. But communities do not drift into an excess of deaths over births overnight, and it will take a period of sustained inmovement to end it.

Regional Data Continue to Highlight the West

Among major regions, nonmetro population growth continued to be much faster in the West than elsewhere, with an 11.8-percent rise from 1990 to 1995. With this high pace of growth, the West acquired a third of all nonmetro increase despite having just 14 percent of the Nation's nonmetro residents in 1990. A majority of this growth has gone into the thinly settled Mountain States.

The Central region, which consists primarily of the Great Plains and Corn Belt, had the slowest growth, 2.0 percent. In the past, an increase this low over 5 years would have implied some net outmovement. But the margin of births over deaths is now so low in most Central States that the 2.0-percent increase was reached only with some net inmigration. The North

Table 2

Regional population change, 1980-95

All regions have had net migration of people into nonmetro areas since 1990

	Population			Change		Net migration		Net migration rate	
Region	1995	1990	1980	1990-95	1980-90	1990-95	1980-90	1990-95	1980-90
	Thousands			Percent		Thousands		Percent	
United States:									
Metro	209,266	197,816	176,965	5.8	11.8	2,875	6,576	1.5	3.7
Nonmetro	53,469	50,903	49,577	5.1	2.7	1,554	-1,371	3.1	-2.8
North:									
Metro	76,451	74,959	72,744	2.0	3.0	-925	-1,803	-1.2	-2.5
Nonmetro	12,955	12,484	12,098	3.8	3.2	241	-183	1.9	-1.5
Central:									
Metro	22,758	21,744	20,711	4.7	5.0	73	-717	0.3	-3.5
Nonmetro	10,698	10,492	10,926	2.0	-4.0	108	-856	1.0	-7.8
South:									
Metro	60,613	55,628	46,855	9.0	18.7	2,590	4,531	4.7	9.7
Nonmetro	21,685	20,627	20,037	5.1	2.9	645	-421	3.1	-2.1
West:									
Metro	49,444	45,485	36,655	8.7	24.1	1,137	4,564	2.5	12.5
Nonmetro	8,152	7,299	6,516	11.7	12.0	560	90	7.7	1.4

Note: See appendix for definitions of regions, p. 53.

Source: Calculated by ERS using data from the Bureau of the Census.

and the South had population growth rates in rural and small town areas that were below the rate of the total U. S. population, but were well above their growth in the 1980's.

The only subregional exceptions to the overall pattern of more rapid nonmetro gain in the 1990's than in the 1980's were California, Hawaii, and the Florida Peninsula, where growth levels had fallen but were still high by national standards, and New England, where both metro and nonmetro growth was very modest, in keeping with the economic slowdown there.

1970's Redux

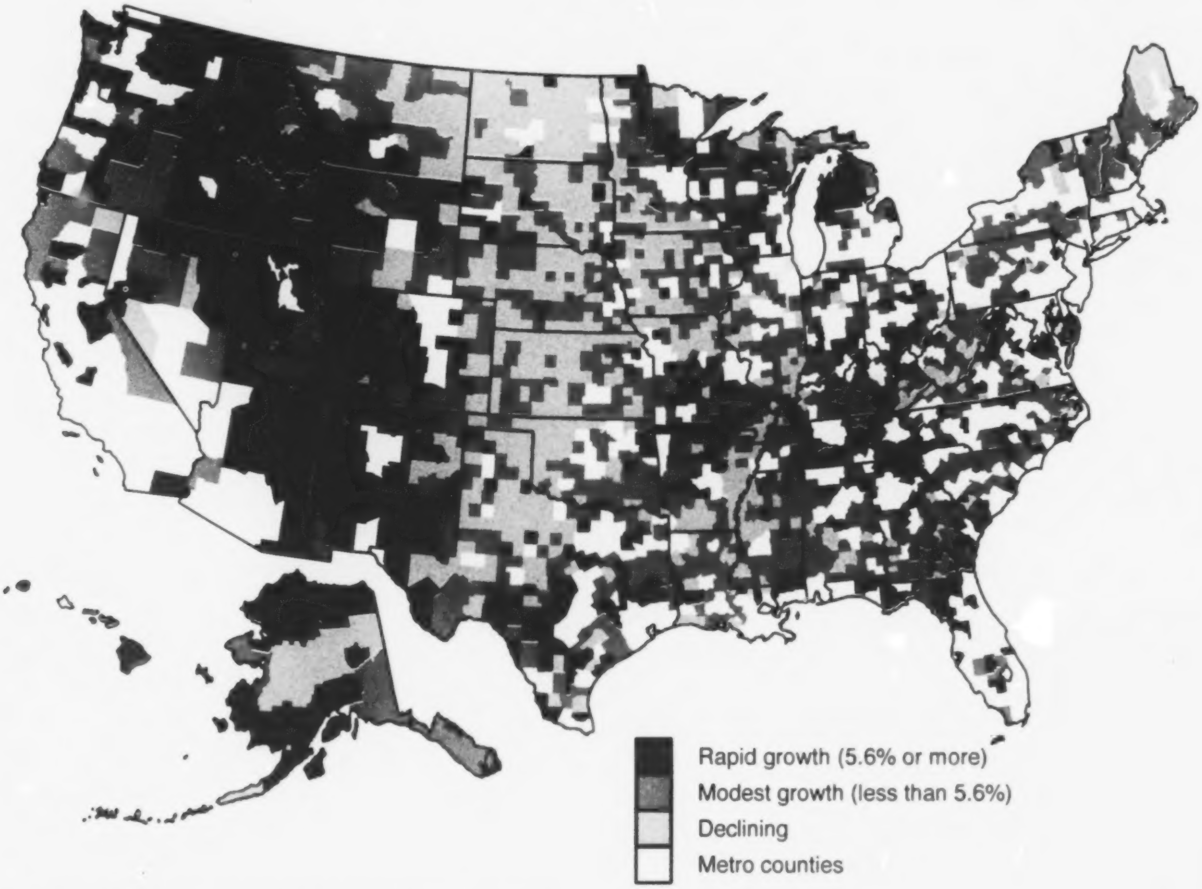
By 1994, the nonmetro population trend was becoming increasingly similar to that of the "rural turnaround" years of the 1970's, and the data for 1995 add to this analogy. It is obvious from the location of new growth that amenity-based considerations are important driving forces, as is continued metro sprawl. But nonmetro counties have also had superior rates of job growth, especially during 1991-93, when metro areas were in or just recovering from the predominantly metro recession of the early 1990's. Employment data show that this job growth advantage ended by mid-1995.

From other sources including the article that follows, we know that the shift to nonmetro net inmigration from 1990-94 came as much from reduced outflow of people to the metro

Figure 2

Nonmetro population change, 1990-95

A third of all nonmetro counties grew faster than the Nation as a whole, but a fourth declined



Note: National average growth for this period was 5.6 percent.
Source: Calculated by ERS using data from the Bureau of the Census.

areas as it did from a stepped-up inflow of newcomers. Whether rural outmovement will swell again if metro America resumes a superior rate of job opportunity remains to be seen. But for the moment, rural and small town growth is widespread and was on a par with metro growth by 1995. *[Calvin Beale, 202-219-0482, cbeale@econ.ag.gov]*

Higher Inmigration, Lower Outmigration Contribute to Nonmetro Population Growth

The ability of nonmetro areas both to retain current residents and to attract newcomers increased during the late 1980's and early 1990's. Higher inmigration contributed more to population growth in central and southern areas while lower outmigration was more important in high-amenity sections of the Rocky Mountains and Colorado Plateau.

From 1988-89 to 1993-94, annual nonmetro inmigration rose 7.1 percent (from 2.55 million to 2.73 million people) while outmigration decreased 2.3 percent (from 2.54 million to 2.48 million people). Higher inmigration and lower outmigration fueled the recent revival of nonmetro population growth, with higher inmigration contributing more overall. The joint effect of more newcomers arriving and fewer residents leaving created a 17-fold increase in nonmetro population growth attributed to net migration, from 15,000 people in 1988-89 to 254,000 people in 1993-94. The latter amounts to a 0.6-percent annual growth rate from net migration, double the average annual rate of loss during the 1980's and close to the large migration gains of the 1970's.

Net Migration Rates Are Tip of Total Migration Iceberg

The previous article uses Census Bureau estimates of population change and its components—net migration and natural increase—to analyze trends during 1990-95 compared with the 1980's. Results show that domestic net migration played a major role in nonmetro areas, accounting for half of total population growth during the first half of the 1990's. But net migration is just a fraction of the total rearrangement of population taking place from migration in nonmetro areas. This article uses data from the Internal Revenue Service to examine in- and outmigration flows separately, comparing 1993-94 patterns with similar data from 1988-89. (See "About the Estimates," below, for a description of the data.) It is not surprising that results corroborate the previous article's findings of a broad population revival fueled by increasing net migration, because the Census Bureau uses the Internal Revenue Service's data in its population estimates.

Nonmetro net migration for the Nation as a whole measures the net gain or loss due to population exchange with metro areas but does not indicate the size of the component in- and outmigration flows. Neither does it measure the large number of moves from one nonmetro county to another. These two migration flows—to and from metro areas and within nonmetro territory—sustain an ongoing redistribution of population, causing some areas to grow rapidly while others decline. During 1988-89, at a time when net migration was close to zero, nonmetro in- and outmigration rates both exceeded 6 percent. The latest annual net migration rate of 0.6 percent results from an inmigration rate of 6.6 percent offset by 6 percent outmigration.

About the Estimates

The Internal Revenue Service compiles annual, county-level migration data by matching current-year tax returns with those from the previous year and comparing addresses. If a county of residence is different in the previous year, members of that family are considered migrants. If the county is the same or no matching return is found, they are considered nonmigrants. The number of exemptions claimed on the return serves as a proxy for the number of migrants in that family. Most people file their returns during early to mid-April, so the data here refer to flows from April of 1 year to April the next. In this article, migration changes are described using two sets of flows, 1988-89 and 1993-94.

IRS migration data cover an estimated 85-87 percent of the migrating population, offering a window into detailed, annual population dynamics not available elsewhere. Coverage varies geographically and is demographically selective—those likely to be left out include college and military migrants, labor force entrants, and the long-term unemployed. Common adjustments to the data to partially correct for geographic variation of missing individuals have not been applied here; adjustments may create more problems than they solve because the demographic groups left out most likely have very different geographic migration patterns than the population as a whole.

High-Growth Areas Exhibit High In- and Outmigration

The one-third of nonmetro counties with rapid rates of population growth during 1990-95 had the highest rates of inmigration during 1993-94, as expected. They also had the highest rates of outmigration, 6.5 percent compared with 6.2 percent for declining counties. Modest-growth counties had the lowest outmigration rates. This frequently observed pattern between in- and outmigration arises because rapidly expanding labor markets generate a good deal of employment turnover. Increasing employment opportunity encourages inmigration but also encourages upward mobility, including the search for better jobs outside the area. In addition, migrants tend to be more prone than others to migrate again; thus areas of high inmigration have a more "footloose" population. Higher migration turnover contributes to economic and social problems often associated with rapid population growth, such as difficulties projecting school enrollments and higher crime rates.

Differing patterns of outmigration rather than inmigration distinguish declining and modestly growing counties from one another. While they had equal inmigration rates in 1993-94, outmigration rates were 13 percent higher for declining than for modestly growing counties. Similar differences held for 1988-89. Throughout this period, lack of opportunities for current residents rather than the inability to attract new residents spelled the difference between population growth and decline.

Patterns of In- and Outmigration Vary Geographically

Despite a higher net migration rate for adjacent nonmetro areas during the 1990's, annual migration trends portray a broadening of population growth, increasingly encompassing areas at greater distances from metro centers. Nonmetro adjacent areas increased in net migration over the 6-year period, but not as dramatically as nonadjacent areas. After losing population to net migration in the late 1980's and early 1990's, nonadjacent counties grew by 96,000 during 1993-94, capturing over one-third of total nonmetro net migration and equalling the net migration rate of adjacent areas. Inmigration rates, which jumped from 5.9 to 6.5 percent, explained most of the renewed growth in nonadjacent areas. In contrast, inmigration rates for adjacent counties increased only slightly from 6.4 to 6.6 percent.

The North experienced a slight drop in net migration rates from 1988-89 to 1993-94 because inmigration decreased more than outmigration. In all other regions, net migration increased over the 6-year period, but the relative contribution of in- and outmigration varied. The Central region switched from negative to positive net migration, mostly from increasing inmigration. Inmigration also contributed much more to the seven-fold jump in net migration in the South. With an inmigration rate close to 9 percent, the nonmetro West grew at twice the rate of the next fastest growing region (1.4 percent net migration

Table 1

Population change from migration, 1993-94, by 1990-95 county population growth types

Rapid-growth counties experienced highest in- and outmigration rates

	Migrants			Population change		
Population growth type	In	Out	Net	In	Out	Net
	Thousands			Percent		
All nonmetro	2,733	2,479	254	6.6	6.0	0.6
Declining	316	348	-32	5.6	6.2	-.6
Moderately growing	1,145	1,107	38	5.6	5.5	.2
Rapidly growing	1,272	1,024	248	8.1	6.5	1.6

Note: See appendix, p. 52, for definition of 1990-95 county population growth types.
Source: Calculated by ERS using data from the Internal Revenue Service.

compared with 0.7 percent in the South). With so much attention paid to stories of California urbanites flooding the countryside, it is surprising that population retention was a key to the phenomenal growth spurt in the nonmetro West. Between 1988-89 and 1993-94, inmigration to the nonmetro West increased by just 2 percent, while outmigration dropped by over 11 percent. As cutbacks in mining and other natural-resource-based industries have played themselves out and opportunities in recreation and tourism have grown dramatically, fewer nonmetro residents in the West are finding it necessary to leave to secure a job.

One outstanding trend since 1990 is the divergence in migration between the metro and nonmetro West. During 1988-89, both had positive net migration, with 80 percent of the growth going to metro areas. By 1993-94, the metro West was losing population to the rest of the country (though it continued to grow through high immigration from other countries and natural increase); this was happening at the same time that the nonmetro West was experiencing net inmigration rates twice as high as any other part of the country, metro or nonmetro. The nonmetro West added 85,000 people through net migration during 1993-94—more than the entire West added 6 years earlier—but metro areas lost 139,000. As a result, the West as a whole lost population due to migration exchanges with other regions of the country, perhaps for the first time in history.

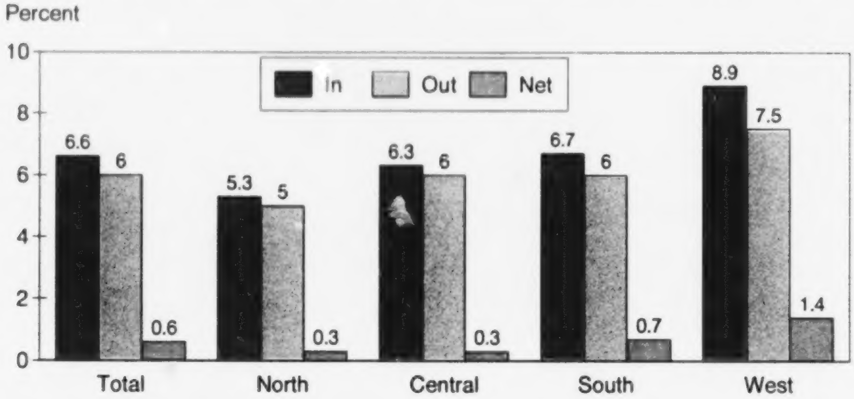
All economic county types experienced higher inmigration, lower or equal outmigration, and higher net migration in 1993-94 than in 1988-89. Both farming and mining counties switched to net inmigration during this interval. Interestingly, inmigration contributed much more than retention to the switch among farming counties, perhaps signalling a growing attraction to these counties for reasons other than farming. Mining counties showed the largest jump in net migration, from -1.2 percent in 1988-89 to 0.1 percent in 1993-94, with higher in- and lower outmigration contributing equally.

Along with retirement-destination counties, Federal lands counties now have the highest inmigration rates among county types; both have inmigration rates exceeding 9 percent. Federal lands counties have the highest outmigration rates as well, reflecting high turnover and instability commonly associated with fast-growing, recreation- and tourism-based economies. Nonetheless, outmigration was 9 percent lower in 1993-94 than it was 6 years before, tripling annual net migration into these amenity-rich, environmentally sensitive areas.

Figure 1

Regional nonmetro population change from migration, 1993-94

The West grew twice as fast through net migration as the next-highest region



Note: See appendix, p. 53, for definition of regions.

Source: Calculated by ERS using data from the Internal Revenue Service.

Migration a Two-Step Process

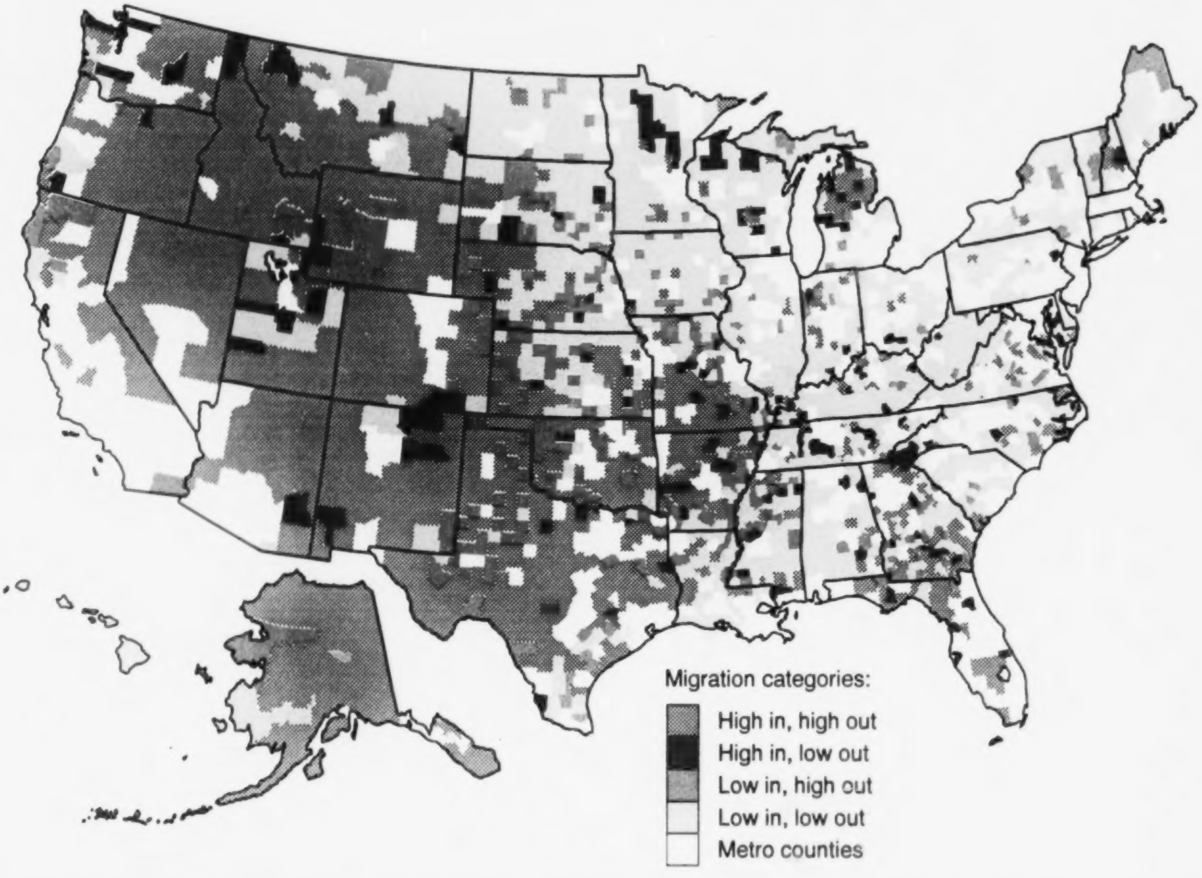
It is useful to view outmigration and inmigration as separate decisionmaking processes. The former is associated with the decision of whether or not to move, while the latter is linked to the choice of a destination, once the decision to move has been made. During 1988-89, 50 percent of outmigration came from the 46 percent of nonmetro counties with the highest outmigration rates. Inmigration was more concentrated, with 50 percent going to 37 percent of counties with the highest inmigration rates. The concentration of outmigration remained unchanged after 6 years, but inmigration became more diffused, though it was still more concentrated than outmigration. Apparently, the list of place-specific factors that attract inmigrants to nonmetro areas is becoming more diverse.

Of the 944 nonmetro counties with high inmigration (above 6.4 percent in 1993-94), 763 of them also had high outmigration (above 6.0 percent). Such counties dominate the Rocky Mountains and Colorado Plateau in the West, areas that also have the highest concentrations of Federal lands. They are also found in the southern Great Plains, in a broad arc stretching from the Ozarks to the Texas hill country, in the northern sections of lower Michigan, and in southern Georgia and the panhandle of Florida.

Figure 2

Nonmetro migration, 1993-94

Western, high-amenity counties are experiencing high migration turnover



Note: A 6.4-percent inmigration rate divides counties into high and low "in" categories, with 50 percent of inmigrants in each category; a 6-percent outmigration rate does the same for "out" counties.
Source: Calculated by ERS using data from the Internal Revenue Service.

Rapidly growing areas of high inmigration and low outmigration, few in number, are commonly found on the fringes of metro areas and in high amenity areas such as the southern Appalachians and the lake country of the Upper Midwest. More common are slower growing or declining areas of low inmigration and high outmigration, which are interspersed with areas of high turnover along the western fringes of the Great Plains, from the Nebraska panhandle through western Texas. A small number of such areas are also scattered through the midwestern Corn Belt and agricultural areas of the South.

Whither Nonmetro Migration?

Higher rates of job growth in nonmetro areas appear to have ended in 1995 and less favorable job-related migration patterns may occur as metro areas continue their recovery from the recession of the early 1990's. However, job-related migration adjustments may be outweighed by longer term trends, including the desire to escape urban environments, decreasing locational constraints on the producer service industry, relatively favorable real estate opportunities in nonmetro areas, and the steady increase in early retirement, recreation, and tourism. These trends are more likely to strengthen in the coming years, increasing the supply of nonmetro newcomers, especially to high-amenity areas, and allowing current residents to stay. *[John Cromartie, 202-219-0192, jbc@econ.ag.gov]*

Rural Employment Gains Continue, But Pace Slows

Nonmetro employment growth in 1994-95 continued to outpace the growth rates of the 1980's, although the rate of growth was somewhat slower than in the previous year. Meanwhile, nonmetro unemployment in 1995 fell to its lowest rate in over 15 years.

Employment in nonmetro areas grew 1.7 percent between 1994 and 1995, as moderate and steady economic expansion continued for the fourth consecutive year, according to data from the Bureau of Labor Statistics. Although this rate represents a sharp deceleration from the 2.7-percent growth of the previous year, it remains faster than the average annual nonmetro rate of the 1980's. To some extent, the lower growth rate of 1995 reflects a national economic "cooling off" from the more rapid growth of 1993-94. The slowdown was widespread across major regions, as well as across economic and policy county types, indicating that macroeconomic factors may have played a key role (see appendix, pp. 54-55, for definition of county types).

The nonmetro unemployment rate, meanwhile, fell by half a percentage point to an average of 6.2 percent in 1995, the lowest rate since 1979, as more people took jobs than entered the labor force. The difference was drawn from the ranks of the unemployed. Like employment change, overall nonmetro unemployment trends held true across regions and county types.

Metro Growth Rate Matches Nonmetro Rate

The nonmetro growth rate fell slightly below the metro rate of 1.8 percent for the first time since 1990. The impact of the 1990-91 recession was felt more strongly in metro areas, and the initial metro recovery proceeded more slowly. This was in marked contrast with the experience of the early and mid-1980's, when metro employment growth outpaced nonmetro growth for 8 years in a row.

Slow overall metro employment growth during the early 1990's reflects mainly the more severe recessionary dip and sluggish recovery in core counties of larger metro areas with more than 1 million population. Growth in other metro counties matched nonmetro county growth during this period. In contrast, employment in the metro core counties grew at about the same rate as other metro counties throughout the 1980's, and consistently exceeded nonmetro growth rates.

Growth Accelerates after 1990 in Three of Four Regions

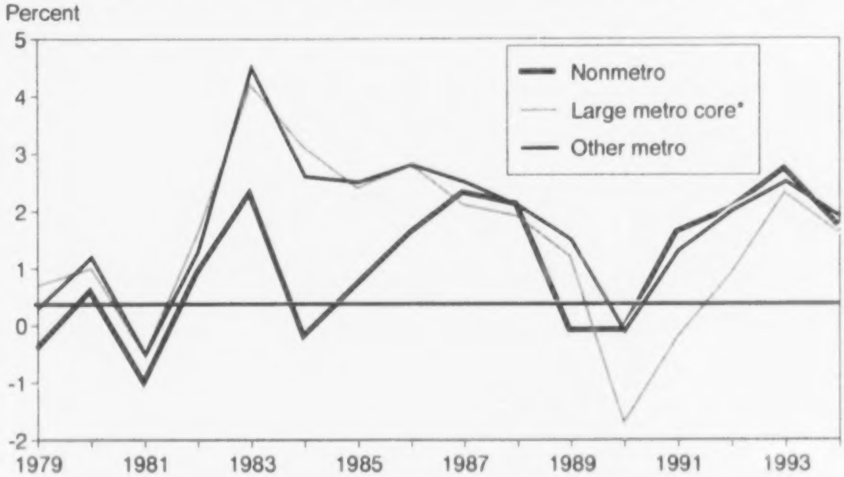
Nonmetro employment growth in three of four U.S. regions accelerated significantly between the 1980's and the 1990's. The most dramatic change occurred in the Central region, where a decade of near-zero employment growth from 1980 to 1990 was followed by annual employment growth of 1.4 percent from 1990 to 1995. However, the fastest nonmetro annual growth rate in both periods was observed in the West; this rate rose from 1.6 percent in the 1980's to 2.5 percent in the 1990's. In the South, annual nonmetro employment growth accelerated from 0.9 percent in 1980-90 to 1.4 percent in 1990-95. Only the North showed no change after 1990, experiencing 1.4-percent annual nonmetro employment growth in both the 1980's and so far in the 1990's.

The three regions that experienced an acceleration of nonmetro employment growth after 1990 also experienced some deceleration between 1993-94 and 1994-95. Sharp deceleration was registered in the nonmetro South (down from 2.8 to 1.2 percent) and the nonmetro West (from 4.3 to 2.4). The nonmetro Central region's employment growth rate also slowed, but less dramatically, while the nonmetro North actually registered somewhat more rapid growth in 1994-95. Nationally, the 1994-95 slowdown represents a return to the overall trends of the post-recession 1990's, following more rapid growth from 1993 to 1994. Also, the recent recovery of metro economies, particularly in California, Texas, and the Great Lakes region, reduces the likelihood that poor economic conditions will push workers and employers into nonmetro areas.

Figure 1

Annual employment change by residence, 1980-95

Central counties in large metro areas lagged other counties during the early 1990's



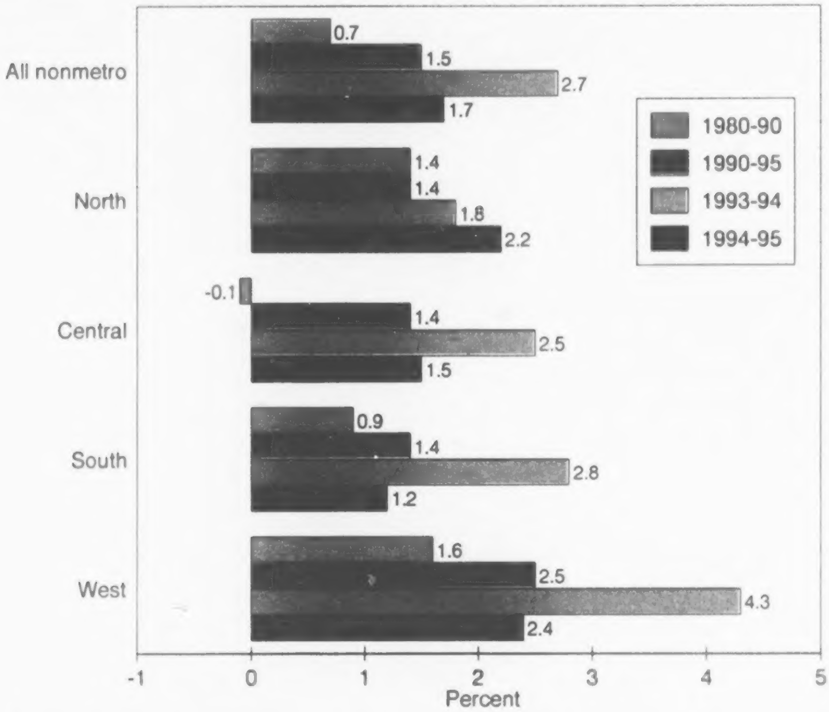
*"Large metro core" counties include counties with a rural-urban continuum code of 0. "Other metro" counties include counties coded 1-3. (See appendix.)

Source: Calculated by ERS using data from Bureau of Labor Statistics.

Figure 2

Nonmetro annual employment change by region, 1980-95

All regions except the North experienced slower nonmetro growth in 1994-95 than in the previous year



Source: Calculated by ERS using data from Bureau of Labor Statistics.

Farming- and Mining-Dependent Counties Grew More Rapidly in 1990's

Employment growth accelerated across all county economic types after 1990. The most marked changes were in farming-dependent counties, which grew 1.4 percent annually from 1990 to 1995 after near-zero growth during the 1980's, and in mining-dependent counties, where the modest 0.5-percent 1990-95 annual growth rate was a sharp improvement in the 0.7-percent average annual decline in employment during the 1980's. Annual growth rates increased by nearly a full point in service-dependent and nonspecialized counties as well. The service-dependent counties, with 2.1-percent annual growth, experienced the fastest 1990-95 average employment growth of any county economic type. A more modest increase was seen in the annual growth rate for manufacturing-dependent counties (from 1.0 to 1.4 percent), while the increase for government-dependent counties was a slight 0.1 percent (from 1.6 to 1.7 percent).

The slowdown in nonmetro employment growth in 1995 was also seen across all county economic types. The drop was especially notable in farming-dependent counties, where the growth rate fell from 2.9 to 1.1 percent from 1993-94 to 1994-95. In most years, farming-dependent counties are among the slowest growing economic types; even with the recent decline, their employment trend remains much more favorable than it had been during the 1980's.

The much slower growth seen in service-dependent counties in 1994-95 compared with the previous year also left them well above the 1980-90 trend. The slowdown in these counties, however, is somewhat more disturbing since service counties have led the nonmetro recovery.

Employment growth in manufacturing-dependent counties shifted downward by a full percentage point from the 1993-94 rate, while growth in government-dependent counties slowed least.

Nonmetro Unemployment Dips to 15-Year Low

The average unemployment rate in nonmetro areas stood at 6.2 percent in 1995, down from 6.7 percent in 1994. This is the lowest annual nonmetro unemployment rate in more than 15 years, and more than 2 percentage points below the average nonmetro unemployment rate of 8.8 percent over the whole of the 1980's, according to the Local Area Unemployment Statistics (LAUS) from the Bureau of Labor Statistics.

Since the 1990-91 recession, nonmetro unemployment rates have tracked less than a percentage point above the metro rate. The trend continued in 1995, with the metro unemployment rate at 5.4 percent, 0.8 percentage point lower than the nonmetro rate. The relatively narrow metro-nonmetro gap of the last few years is a welcome change from the 1980's, when the gap averaged nearly 2 percentage points.

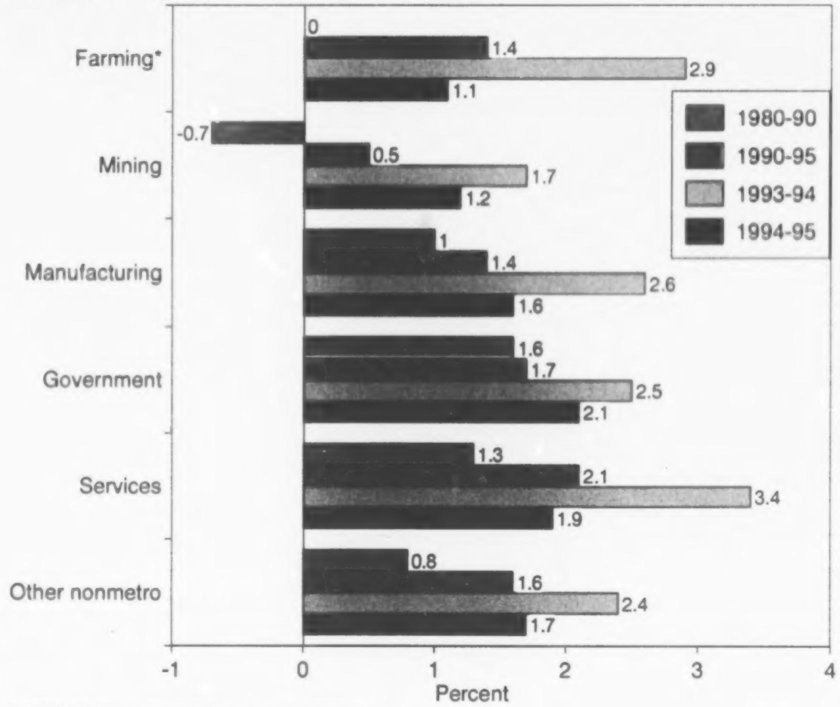
Earlier in the decade, data from the Current Population Survey showed nonmetro unemployment rates actually falling below those of metro areas after 1991. Because of sampling changes and metro/nonmetro recoding to reflect the 1990 Census, accurate nonmetro labor force estimates from the CPS were unavailable for 1994 and 1995. If the past relationship between LAUS and CPS estimates still holds, we expect to find the nonmetro unemployment rate equal to or less than the metro rate according to CPS estimates to be released in 1997.

Regional differences in unemployment persist, with 1995 nonmetro unemployment rates ranging from less than 5 percent in the Central region to 7.4 percent in the West. Nonmetro unemployment rates have fallen sharply since the 1980's in all four regions, with declines ranging from just over 2 points in the West to nearly 3 points in the North. However, the Western rate remains above its 1990 low of 6.9 percent. Areas with high employment growth, such as the West, often experience a high proportion of job searching, which raises the unemployment rate. The greater number of available jobs brings in workers who are new to the area, but also induces many current workers to seek better employment. *[Lorin Kusmin, 202-219-0550, lkusmin@econ.ag.gov, and Robert Gibbs, 202-501-7975, rgibbs@econ.ag.gov]*

Figure 3

Annual employment change by county economic type, 1980-95

Growth has been faster for all county types in the 1990s, especially in 1993-94



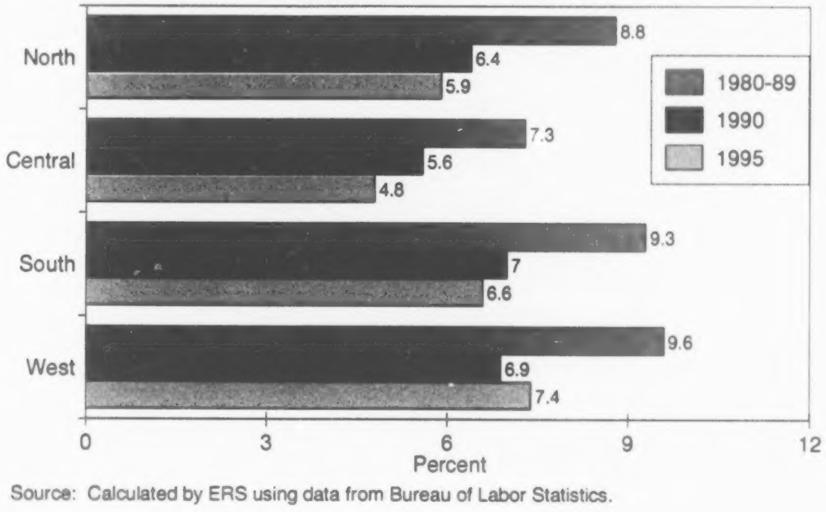
* 1980-90 figure for farming was -0 percent.

Source: Calculated by ERS using data from Bureau of Labor Statistics.

Figure 4

Nonmetro annual unemployment rates by region, 1980-95

Unemployment rates stand at a 15-year low in all regions except West



Source: Calculated by ERS using data from Bureau of Labor Statistics.

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Rural Nonfarm Earnings Edge Up

During 1994, rural real earnings per nonfarm job increased faster than urban earnings. Rural earnings levels, however, continued to lag behind those for urban areas across all regions and industrial sectors.

Rural real earnings per nonfarm job rose by 1.2 percent from $21,569 per nonfarm job to $21,826 in 1994 (fig. 1).[1] Urban real earnings per nonfarm job increased at a slower pace (0.4 percent), rising from $29,807 in 1993 to $29,919 in 1994. This is the third consecutive year that rural earnings have increased, and the second consecutive year that rural earnings growth has outpaced urban. All industry sectors of the rural economy experienced real growth in 1994, and growth in all rural sectors matched or surpassed that of urban sectors. This contrasts markedly with rural earnings per job performance during the 1980's, when increasing demand for high skilled workers and a job mix dominated by declining industries hurt rural areas, and earnings per job fell at an annualized average rate of -0.6 percent. Although rural real earnings per job are growing after a decade of decline, a wide rural-urban earnings gap persists, presenting a mixed picture of the rural economy.

Rural-Urban Gap Remains Wide

Despite recent growth in rural real earnings per job, the rural-urban earnings gap increased steadily in the 1980's and early 1990's. In 1980, rural earnings per job were 80.6 percent of urban—a gap of $5,465 (in 1994 dollars). By 1990, rural earnings had fallen to 73.7 percent of urban earnings—a gap of $7,586. The largest rural-urban gap occurred in 1992, following the 1989-91 recession, when rural earnings were $8,316 lower, or just 72.1 percent of urban. By 1994, the rural-urban gap had dropped only slightly to $8,093, or 73.0 percent.

The rural-urban gap in earnings per job holds across all industry sectors (app. table 7). During the 1980's, the rural-urban earnings gap widened sharply in the services, trades,

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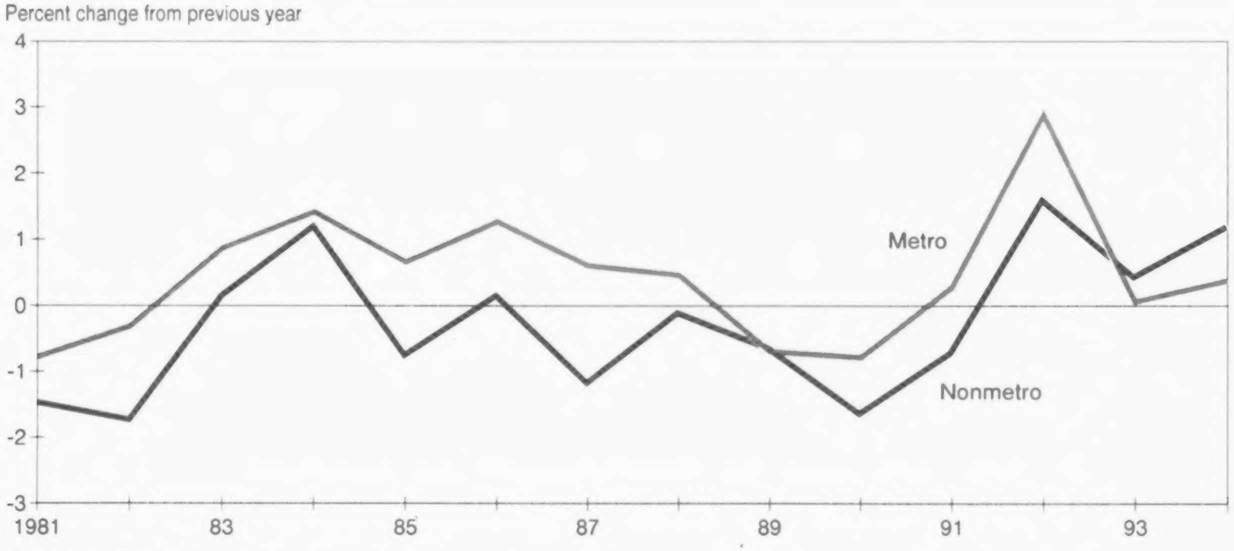
[1] The 1994 data reflect revisions of the three prior years and thus may not exactly match previously reported numbers. All years' earnings are converted to 1994 dollars using the implicit price deflator for personal consumption expenditures.

Figure 1

Annual change in real earnings per job, 1980-94[1]

Nonmetro earnings per job outpaced metro in 1994



[1] Real earnings in 1994 dollars.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

and construction sectors. Resource-based industries (agriculture services, mining) and government experienced less rural-urban divergence. In 1994, the earnings gap was largest in the finance, insurance, and real estate sector, where rural earnings per job were about half of urban earnings ($30,048 vs. $15,674). Rural earnings were 64.8 percent of urban in the services sector, 66.8 percent in wholesale trade, and 69.9 percent in manufacturing.

Despite Recent Rise in all Regions, Earnings per Job Remain Below 1980 Levels

Since 1991, rural earnings per job have increased in all regions (fig. 2). Even with these gains, 1994 rural earnings per job were lower than 1980 levels in the Western, Central, and Southern regions. During the 1980's, rural earnings per job fell in all regions, including the North. Particularly hard hit was the rural West, where 1990 earnings per job were only 86.2 percent of those in 1980, and the Central region, where 1990 earnings were 90.4 percent of those in 1980. Declines were more muted in the rural North and South, where 1990 earnings were 98.3 and 95.1 percent, respectively, of 1980 levels. Variation in two key sectors, manufacturing and services, helps explain these regional differences. Real earnings per job increased in both sectors in the rural North and South, but fell in the rural Central and Western regions. The rural West was hit particularly hard by a decline in manufacturing earnings per job; the rural Central region suffered a steep decline in earnings in the services sector.

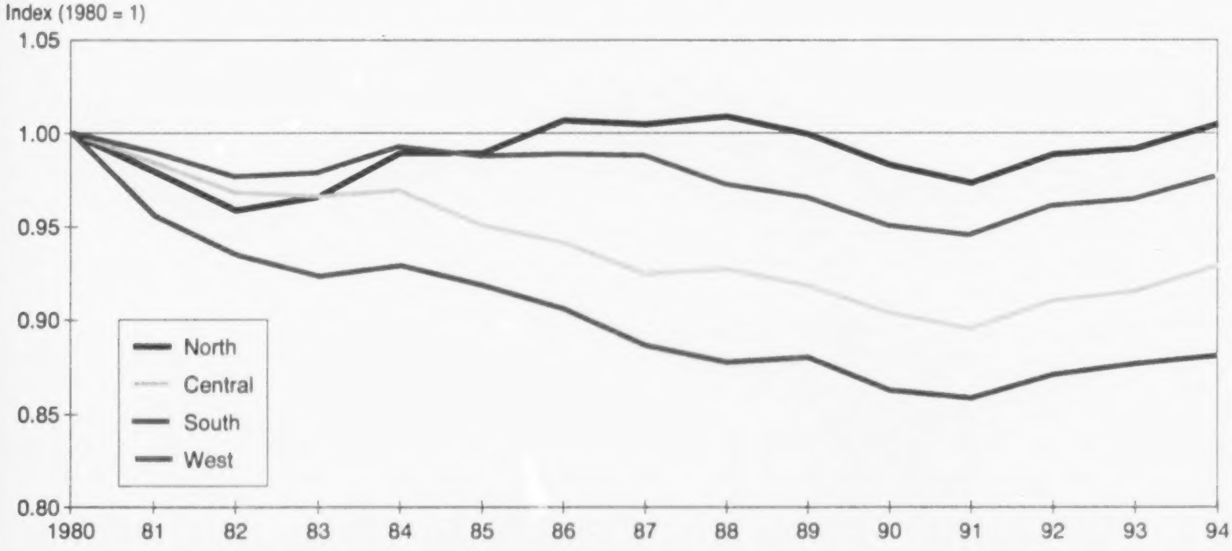
Since 1991, rural earnings per job have increased in all regions' industries except the agricultural services, forestry and fishing sector. Earnings per job in manufacturing increased notably in the rural North, Central, and South. Rural earnings per job also rebounded in the services and government sectors, helping rural areas in all regions to improve during this period.

Although the rural West experienced the slowest growth in real earnings per job during 1990-94, the relative level of earnings remains high compared with the other regions. In 1994, rural areas in the North had the highest earnings per job ($23,195), followed by the West ($22,759), the South ($21,382), and the Central region ($20,334).

Figure 2

Nonmetro real earnings by region, 1980-94 [1]

Earnings declines were most pronounced in the rural West and Central regions during the 1980's



[1] Real earnings in 1994 dollars.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

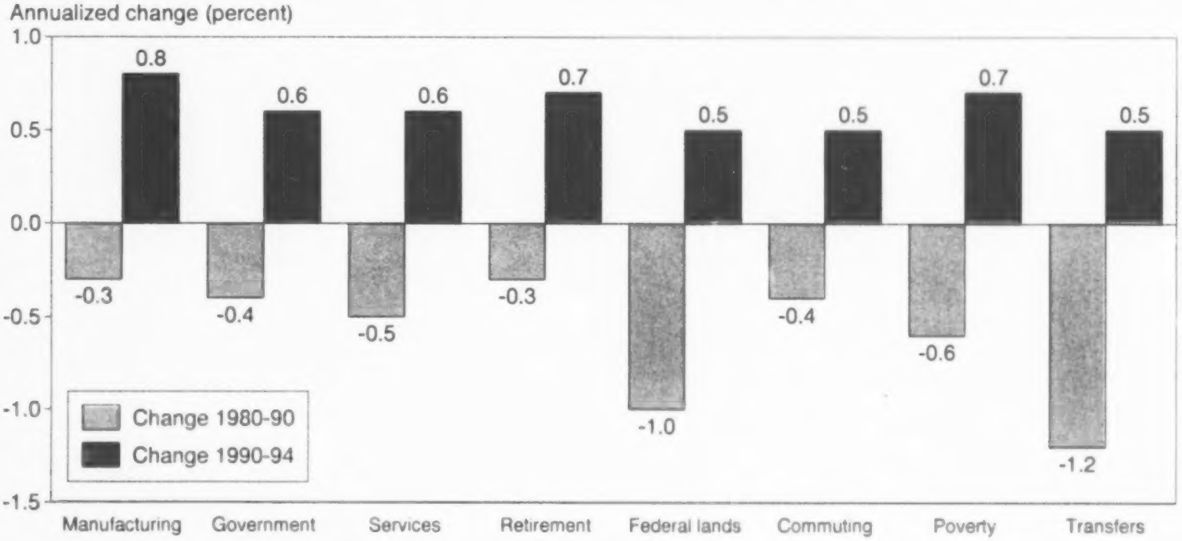
Earnings Rise in All County Types

All county types experienced declines in real earnings per job during the 1980's, and all (except mining counties) have had real earnings growth since 1990 (fig. 3). Manufacturing, retirement-destination, and persistent poverty counties have had especially robust growth rates in 1990-94; real earnings per job growth in services and government counties matched the rural average for this period. While recent growth rates have been similar for most types, the rates of decline in the 1980's differed sharply. Federal lands and transfers counties experienced especially large declines in 1980-90. The disproportionate number of Federal lands counties in the rural West also helps explain that region's unusually large earnings per job loss in this period. Losses in manufacturing and retirement-destination counties, however, were much more modest. It is not totally clear why these divergent patterns of growth have been replaced by more uniform patterns of real earnings per job growth across county types. Converging earnings growth, however, is consistent with the widespread increase in rural employment during the 1990's and a tightening labor market. Furthermore, preliminary evidence suggests that many rural areas, regardless of their economic base, may be buoyed by the declining attraction of metro areas for well-educated workers, and by the diffusion of new production technologies that require a higher-skilled labor force. *[Kathleen Kassel, 202-501-7981, kkassel@econ.ag.gov and Robert M. Gibbs, 202-501-7975, rgibbs@econ.ag.gov]*

Figure 3

Change in nonmetro real earnings per job by county type, 1980-90 and 1990-94

Varying losses in the 1980's were replaced with generally consistent gains in earnings per job in the 1990's



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Growth in Per Capita Income Is Widespread in Rural America

Rural America experienced a modest increase in per capita income during the 1980's and early 1990's. The growth was quite widespread, extending to all regions and affecting counties with various economic bases. Per capita income has grown slightly faster in rural than in urban areas, but rural per capita income is still far below that of urban residents.

Rural per capita income was $16,964 in 1994. Adjusted for inflation, it declined 0.7 percent during the 1990-91 economic recession, then increased 2.2 percent, 0.9 percent, and 2.8 percent in the following 3 years. Hence, the average annual increase during 1990-94 was 1.2 percent, compared with 1.4 percent in the preceding decade.

At the beginning of the decade, rural per capita income was 28.0 percent below urban per capita income. Since 1990, rural income has grown more rapidly than urban income, decreasing the rural-urban income gap to 25.9 percent in 1994. (Urban per capita income in 1994 was $22,882.) This is a reversal of the trend of the 1980's, when the rural-urban gap widened. The gap in 1994 is about the same as it was in 1980 (fig. 1).

The Share of Rural Personal Income from Dividends, Interest, and Rent Has Declined

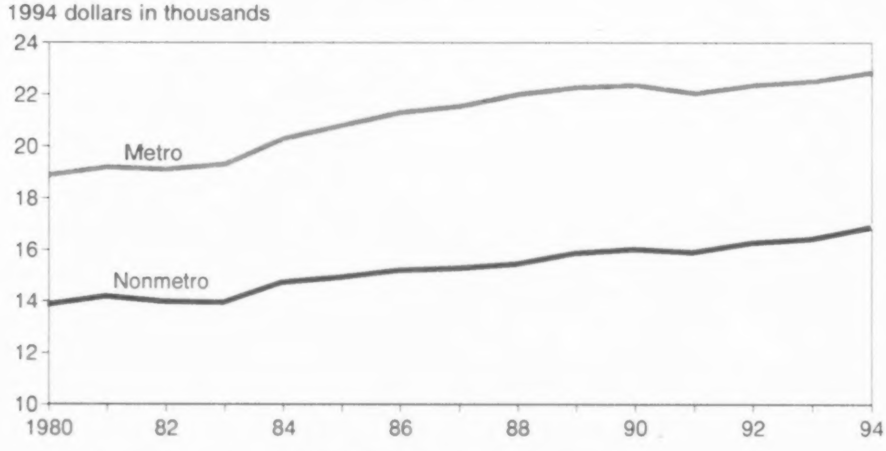
Personal income consists of earnings (wages, earnings from self-employment, and income from proprietorship), income from capital holdings (dividends, interest, and rent), and government transfers to individuals and nonprofit institutions (Social Security, Medicare, Medicaid, welfare, and others). In rural areas, 62.6 percent of 1994 personal income came from earnings, 15.5 percent from dividends, interest and rent, and the remaining 21.9 percent from government transfer payments (see next article about transfers to individuals). The share of income from transfers is somewhat higher and that from earnings somewhat lower than in urban areas, primarily because of the higher proportions of elderly and poor living in rural areas. The share of rural income from earnings has remained about constant since 1990 following a decline of about 5 percentage points during the 1980s. Since 1990, the share from dividends, interest and rent has declined 2.5 percentage points while that from government transfers has increased about the same amount (fig. 2).

The growth in rural per capita income during the 1990's resulted from a 1.4-percent increase in per capita earnings and a 4.2-percent increase in per capita government transfers, partially offset by a 2.5-percent decline in per capita income from dividends, interest, and rent. The growth in earnings per capita primarily reflects a higher employ-

Figure 1

Trends in per capita income by residence

Nonmetro per capita income growth has closely paralleled that in metro areas, but remains 26 percent below metro per capita income in 1994



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

ment rate, since earnings per job increased much more slowly (0.6 percent) during the period (see preceding articles in this issue on nonfarm earnings and employment/unemployment).

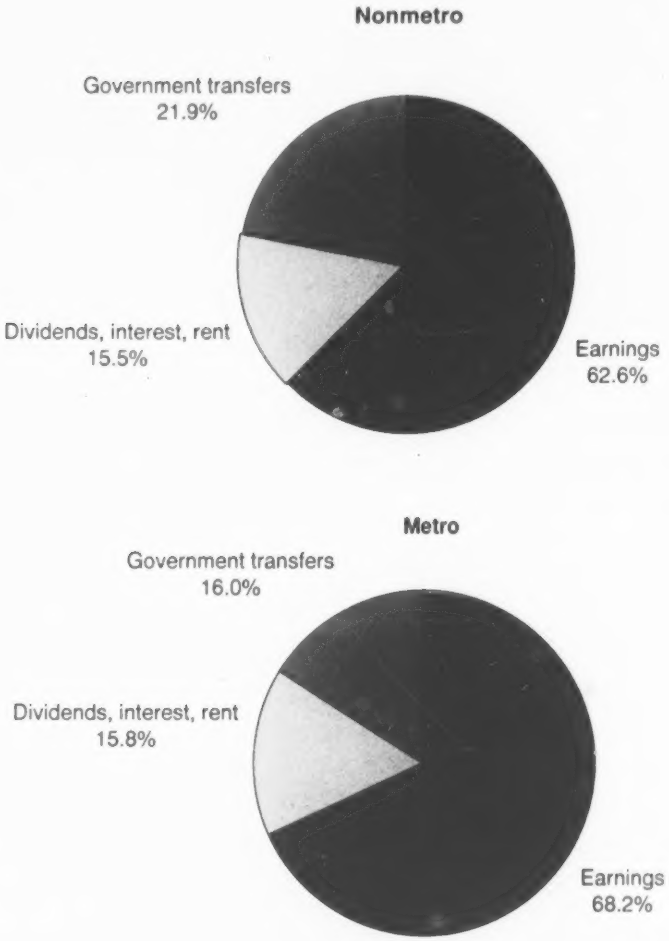
Rural Per Capita Income Is Lowest in the South but Has Grown Most Rapidly in That Region

Rural per capita income varies only moderately among regions. (See page 53 for definitions of regions used in this issue.) In 1994, rural per capita income was highest in the North at $18,028 and lowest in the South ($15,905), but the low value was only 12 percent under the high value (fig. 3). During both the 1980's and the early 1990's, rural per capita income grew more rapidly in the South than in any other region, reducing the rural South's economic disadvantage substantially (fig. 4).

Figure 2

Sources of personal income by residence, 1994

The share of personal income from earnings is somewhat smaller in nonmetro than in metro areas, primarily because of the larger proportion of retired persons in nonmetro areas



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

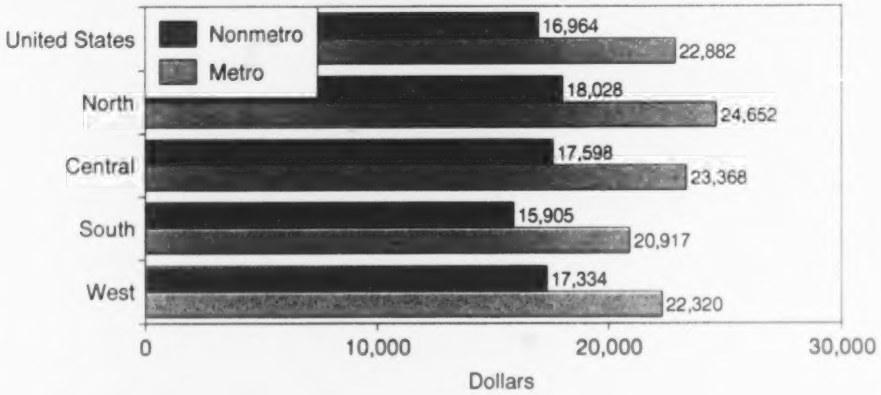
Income Growth Was Fastest in the Lowest- and Highest-Income Households

At first glance, the increase in rural per capita income during the early 1990's seems inconsistent with the nearly stagnant trend of median household income for the same period (described in the Spring 1995 issue of *Rural Conditions and Trends*, Vol. 5, No. 1, p. 26). Rural median household income — the income received by the household at the

Figure 3

Per capita income by region and residence, 1994

Nonmetro per capita income is highest in the North and West and lowest in the South, but it varies only moderately among regions

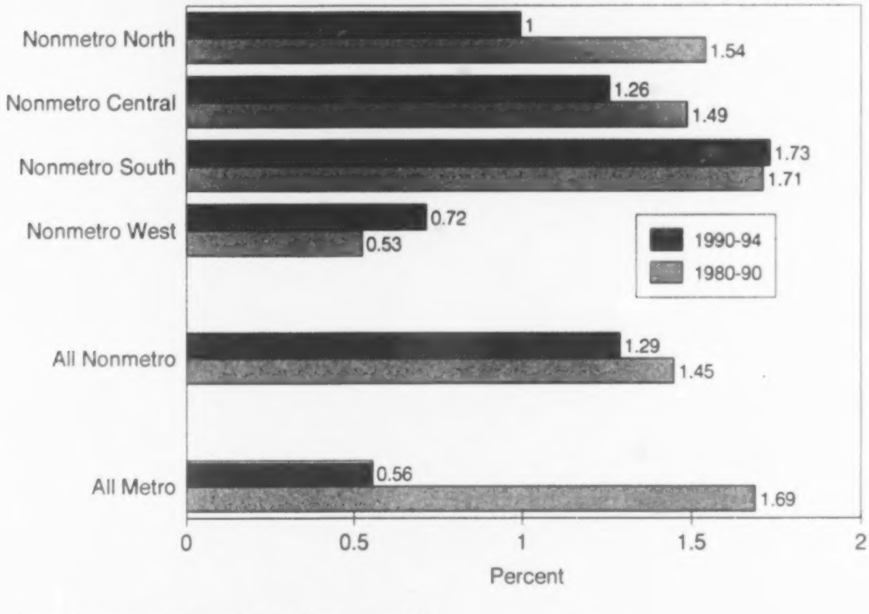


Note: See appendix for definition of regions, p. 53.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Figure 4

Average annual growth in per capita income by region

In the early 1990's, nonmetro per capita income grew at about the same rate as in the 1980's, and at more than twice the metro rate; per capita income grew fastest in the South during both periods



Note: See appendix for definition of regions, p. 53.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

50th percentile of the income distribution — grew only 3.3 percent during 1985-94[1] (see box for comparison of the different statistics). During the same period, rural per capita income grew 12.9 percent. The distribution of the additional income across households accounts for most of this seeming anomaly. Income growth rates were highest in low-income and high-income households, whereas in middle-income households — where the median household is located — income grew much more slowly (fig. 5). Absolute growth was highest in the one-fifth of rural households with the highest incomes; per capita income (adjusted for inflation) in those households was $1,305 higher in 1994 than in 1985. Proportionally, per capita income growth was highest in the one-fifth of rural households with lowest incomes. Although per capita income in this quintile grew by only $595, it represented a growth rate of over 19 percent. A small decrease in the average number of persons per household also contributed slightly to the disparity in the growth rates of per capita income and median household income.

Income Levels Highest in Services-Dependent Counties

Among the county economic types, per capita income in 1994 was highest in counties heavily dependent on services and trade, exceeding the all-nonmetro per capita income by more than $1,300 (app. table 9; see pp. 54-55 for definitions of county types). Incomes in manufacturing and farming counties were right at the all-nonmetro value, while mining and government-dependent counties had per capita incomes about $1,000 lower.

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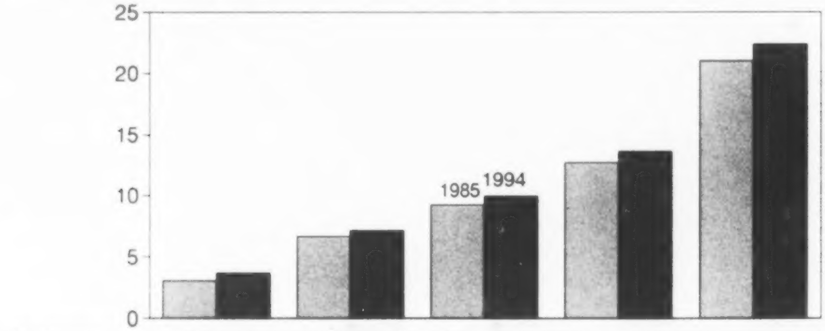
[1] The period 1985-94 was used for this comparison for reasons of Current Population Survey data availability and comparability. Metro definitions were updated in 1985, so comparisons to earlier years by metro-nonmetro status would be biased.

Figure 5

Rural income distribution among households, 1985 and 1994

Income growth was concentrated in the lowest and highest income households

Per capita income
(1994 dollars in thousands)



	Lowest	Second	Third	Fourth	Highest
Growth ($)	595	436	395	909	1,305
Growth (%)	19.3	6.6	4.1	7.1	6.2

Household income quintile

Source: Calculated by ERS using data from the March 1986 and 1995 Current Population Surveys.

Among the county policy types, income was highest in retirement and Federal lands counties and, not surprisingly, lowest in persistent-poverty counties as well as counties that depend heavily on government transfers. (Many of the counties in the latter two types overlap.) Per capita income was about $2,700 below that for all nonmetro in both of these categories.

Comparing per capita income among county types categorized by their population growth trends in the first half of the decade yields an unexpected result. Per capita income was highest in the counties that lost population ($17,151) and lowest in the rapid-growth counties ($16,769). This results partly from regional differences in per capita income. Most of the declining counties are in the Central region where per capita income is above average, and nearly half of the rapidly growing counties are in the South, which has the lowest average income of any region. Also, some of the movement of population into nonmetro areas may be for noneconomic reasons (as suggested in the migration article, p. 13).

Growth in Rural Per Capita Income Occurred in All County Types in the Early 1990's

Nonmetro income growth in the early 1990's was widespread, affecting counties of all economic types and all policy types (app. table 10). Among the economic types, manufacturing counties experienced the highest income growth (1.43 percent per year). Coming after a decade of solid growth in the 1980's (1.57 percent per year), this evi-

Different Statistics Tell Different Stories about Income

Several different statistics are commonly used to summarize the income of the residents of an area or the members of a subgroup. Each statistic tells a different story, and has advantages and limitations.

The statistic per capita income is the sum of all personal income received by the people in an area or category divided by the number of people in that area or category. In this article, the per capita incomes that are presented for regions and for rural and urban areas are based on county income and population data provided by the Bureau of Economic Analysis (BEA). Each year the BEA estimates total personal income in each county, using information from employers, banks, government programs, and other sources. The population estimate, provided by the Bureau of the Census, is based on the decennial count of population and is updated for births, deaths, and for migration estimates based on a wide range of data sources. An advantage of the per capita income statistic is that it can be calculated for small areas, such as counties, on an annual basis. Its chief limitation is that it is almost always strongly influenced by a small proportion of households with very large incomes. Likewise, change in per capita income is strongly influenced by changes in the income of the small proportion of high-income households and may or may not reflect changes experienced by most of the people in the area or category.

The statistic median household income provides a more accurate picture of the income of a typical household in an area or category. It is the income of the middle household (at the 50th percentile) when the households are ranked by income. The median is affected little, if any, by changes in income of the very wealthy or very poor. The chief limitation of this statistic is that it is difficult and expensive to measure, requiring a large random sample of the households in each area or category. For this reason, annual income data adequate to calculate median household income are available only at the national level (in the March Supplement of the Current Population Survey). At the county level, it can be estimated reliably only once a decade, based on decennial census information.

In this article, we use both of these statistics to provide as complete a picture as possible of income and recent income trends in rural America. We report change in median household income at the national level as a measure of income growth of typical rural families. We report per capita incomes of county types to describe the income and recent trends in counties that share important economic, social, and locational characteristics. And we present the range and average of per capita incomes of individual counties within types to depict the extent of variation of county incomes within each type.

dences the robust character of the economies of the manufacturing counties, notwithstanding the challenges of globalization and restructuring. During 1990-94, per capita income grew slowest in farming counties (0.89 percent per year). However, these counties had experienced high income growth in the 1980's (2.03 percent per year).

Income grew rapidly in the poorest rural counties. Persistent-poverty counties experienced per capita income growth of over 2 percent per year during 1990-94. This followed a decade of growth at 1.61 percent per year, somewhat above the nonmetro average, so these counties are slowly closing the income gap separating them from other rural counties.

Per Capita Income Varies Greatly Among Counties Within Farming and Service Categories

The per capita income for each county type (reported above) was calculated for the combined population of the category. Examining the per capita incomes of the individual counties in each category provides additional perspective on how widely per capita income varies among counties within each type.

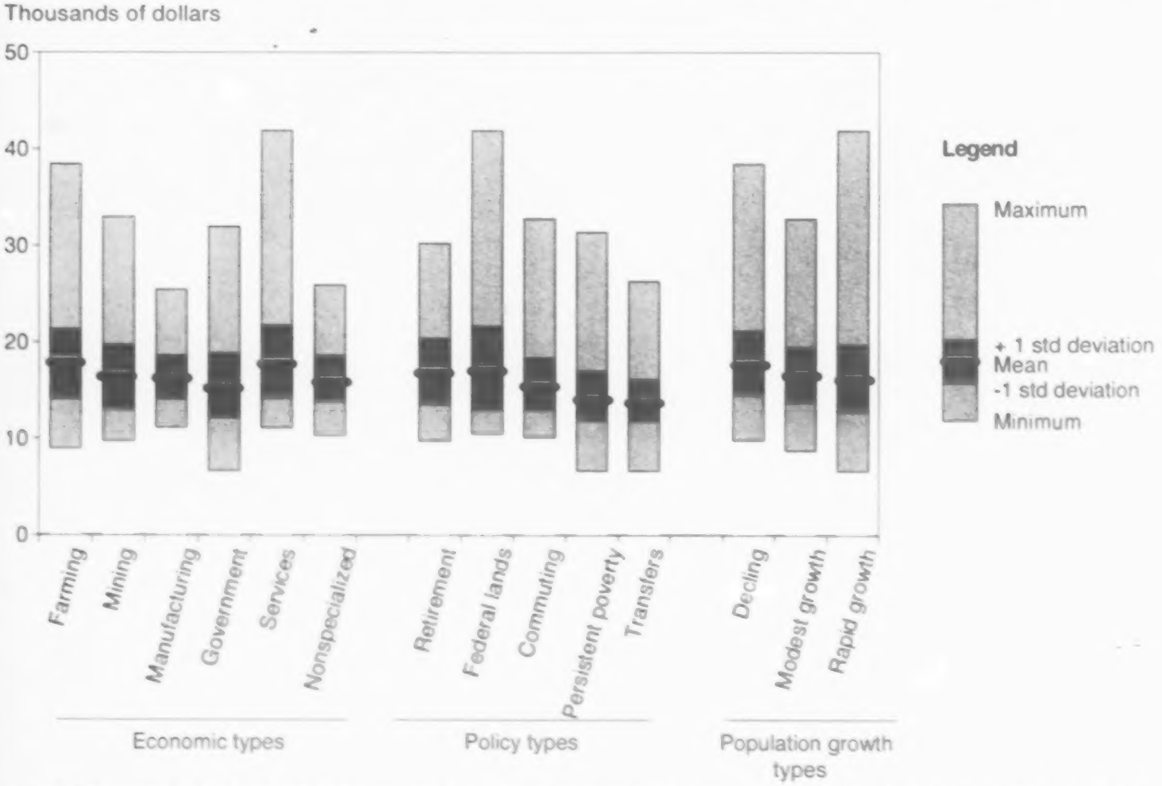
Consistent with the results based on the aggregate per capita income, the average county per capita income was highest in services counties ($17,941) and in farming counties ($17,716) (app. table 11). However, within both of those types, per capita income varied widely among counties. Among the 556 farming counties, per capita income ranged from less than $9,000 to over $38,000 (fig. 6). Per capita incomes for about two-thirds of the farming counties were between $14,176 and $21,265; the remaining one-third of farming counties had incomes either below or above these amounts. The range of income in manufacturing counties was much narrower, attesting to the stability and consistency of rural manufacturing economies.

Of all the county types, those experiencing rapid population growth had the greatest range of per capita income, extending from less than $7,000 to nearly $42,000. This suggests that the cause and character of population growth in these counties is diverse. *[Jack Angle 202-501-7866, jangle@econ.ag.gov, and Mark Nord 202-219-0554, marknord@econ.ag.gov]]*

Figure 6

Means and ranges of county per capita income by nonmetro county types, 1994

Per capita income is highest in farming and services counties, but varies greatly among counties within those types.



Note: On average, about-two thirds of the counties in a category have per capita income within one standard deviation of the mean. For specific values, see appendix table 11.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Rapid Growth in Medical Transfer Payments Is Driving Force for Growth in Transfers

During 1990-94, per capita transfer payments grew over 4 percent annually in both rural and urban America, nearly twice as fast as during the 1980's. A rapid rise in per capita spending for medical payments accounted for a majority of both rural and urban growth. Rural economies rely more heavily than urban economies on transfer income as a major source of personal income. In 1994, per capita transfers made up 21 percent of rural personal income, up from 18 percent in 1989.

Each year, Federal, State and local governments spend billions of public dollars in support of the Nation's social welfare. Large-scale public spending for social programs traces back to the Social Security Act of 1935 that established Social Security, the largest income maintenance program in the Nation, along with several other programs that eventually evolved into Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI), and unemployment insurance (UI). Drawn from public revenues and trust funds, these expenditures include benefits paid to individuals, organizations, and businesses along with capital outlays, and administrative and service costs of the public programs.

A substantial part of public spending for social welfare goes as income transfers to individuals who are recipients of cash benefits distributed through various government programs. Of the $915 billion in cash benefits transferred to individuals in 1994, over $188 billion went to persons living in rural areas, amounting to $3,560 per capita — up from $3,512 in 1993 (1994 constant dollars). Per capita transfer payments to urban residents grew from $3,464 in 1993 to $3,503 in 1994 (app. table 12).

The overwhelming share of rural transfer dollars went to large numbers of retirees as retirement/disability payments including Social Security and government pensions (52 percent) and to suppliers of medical care as Medicare and Medicaid payments (33 percent) (fig. 1). About 9 percent of transfer dollars (totally $17 billion) was cash income benefits paid to qualifying families and persons through welfare programs (AFDC, SSI, food stamps and other income maintenance programs). Unemployment insurance, veterans' benefits, and employment, education, and training programs accounted for the remaining 6 percent (see appendix, pp. 53-54, for definitions).

Share of Rural Personal Income From Transfers Grows

Not only are rural per capita transfers higher than urban per capita transfers, but they account for a larger and growing share of rural personal income. Transfers made up one-fifth of rural personal income in 1994, compared to 15.1 percent in 1979 and 18.0 percent in 1989. The share of urban per capita personal income from transfer payments also grew, increasing from 12.1 percent in 1979 to 15.3 percent in 1994. Clearly, rural areas rely more heavily on transfer income than urban areas.

Transfers Grow Faster in Rural Than Urban Areas

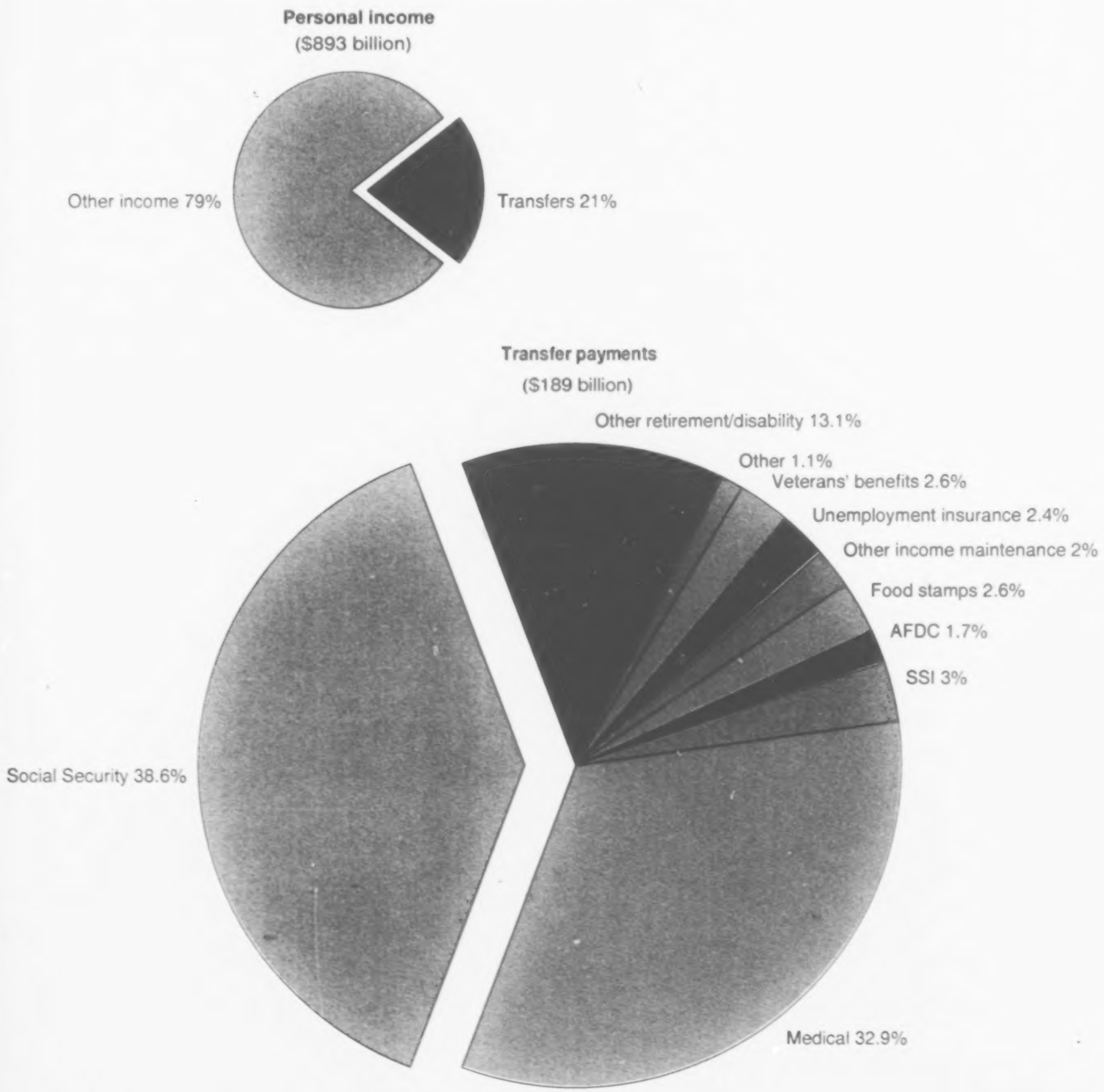
Continuing a trend spanning several decades, per capita government transfer payments to individuals grew faster than inflation in both rural and urban areas during 1980-94. In the early 1980's, rural and urban per capita transfers were growing at about the same pace. After 1981, rural per capita transfers began to grow faster than those in urban areas with the rural-urban gap widening the most during the 1990's (fig. 2).

One of the main forces driving real growth trends in rural transfer payments is growth in medical payments (Medicare, Medicaid, and CHAMPUS payments for military dependents). Accounting for a third of rural per capita transfer dollars, per capita medical transfer payments in 1994 were 271 percent of their 1980 base. Per capita retirement and disability payments (such as Social Security and pensions) grew only slightly faster than inflation. Growth in per capita unemployment insurance fluctuated over the period, growing rapidly during recessionary years and slowing or declining during years of economic recovery. Growth in income maintenance programs (SSI, AFDC, food stamps, and other programs for low-income persons not receiving AFDC) increased slightly to modestly until 1991 when it quickened during the 1990-91 recession, then slowed and leveled off between 1993-94 (fig. 3).

Figure 1

Nonmetro transfer payments as share of personal income and by individual sources, 1994

Over one-fifth of rural personal income came from transfers in 1994



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

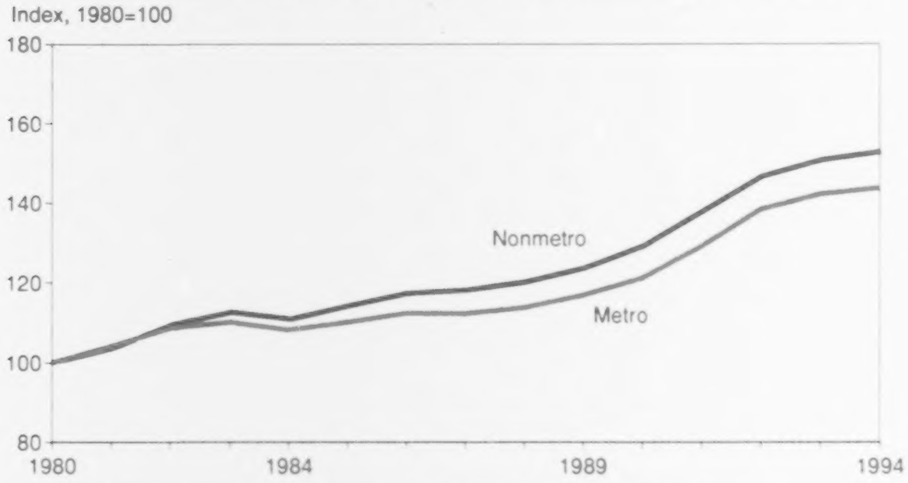
Annual Rate of Transfer Growth Slows in 1994

As reported in the Spring 1995 *Rural Conditions and Trends*, annual rates of change in transfer payments generally follow changes in the economy, growing during recessionary periods and falling during periods of economic recovery. Transfer payments grew at an average annual rate of about 4 percent in both rural and urban areas between 1990-94, about twice as fast as they did during the 1980's. During 1990-92—spanning the year of the last recession when rural earnings declined and the first year of economic recovery when rural earnings grew by 2.81 percent—rural per capita transfers grew more than 6 percent. During the 2 years of the 1992-94 economic recovery when the earnings growth

Figure 2

Trends in real transfer payments per capita by residence

Although transfers grew in both rural and urban areas, rural transfers grew faster after 1981

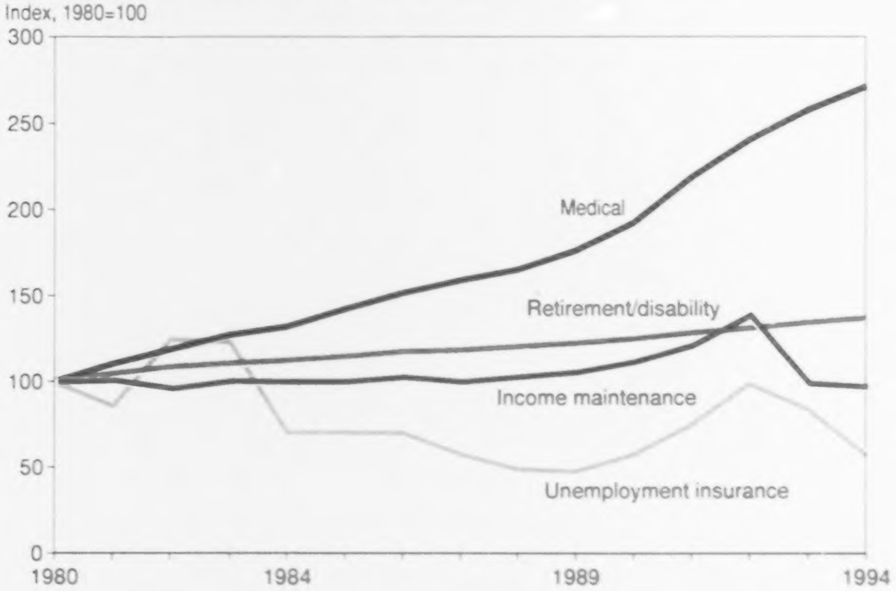


Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Figure 3

Trends in nonmetro real transfer payments per capita by program

Medical transfers in rural areas grew rapidly from 1980 to 1994



Source: Calculated by ERS using data from the Bureau of Economic Analysis increased markedly, growth in transfers decelerated to 2.8 percent in 1992-93 and 1.4 percent in 1993-94 (fig. 4).

Rural growth rates in nearly all program categories either slowed or declined in 1993-94 to the lowest point of the decade (app. table 12). Medical outlays grew, on average, 9 percent a year during 1990-94, with most of the growth occuring in the early 1990's. Responding to employment growth (see p. 18), growth in food stamps and unemployment insurance benefits declined by 3.4 percent and 31.2 percent, respectively. The annual rate of growth in all income maintenance programs dropped dramatically from 13.8 percent in 1991-92 to -0.46 in 1993-94. For the second time during the 1990's, per capita AFDC benefits declined. If the recent national decrease in AFDC recipients reaches rural areas, per capita AFDC benefits may show a continuing decline when the 1995 data become available.

Rural Reliance on Transfers Varies for Different County Types and Geographically

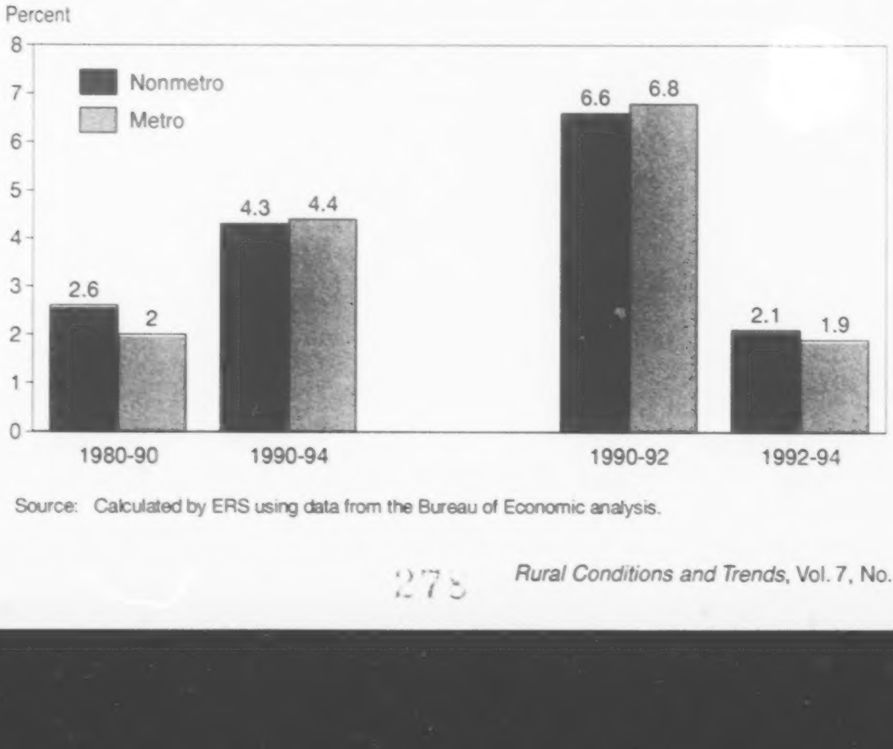
The level of per capita transfers varies among different county types (app. table 13). Counties with somewhat higher per capita transfer payments include those with a high concentration of Black population where transfer payments made up 24 percent of total county per capita personal income and came disproportionately from maintenance programs. In retirement destination counties, per capita transfers were $3,794 and, as one might expect, came disproportionately from programs benefiting people age 65 years or older such as Social Security, government pensions, and Medicare. Likewise, counties with declining populations also depended more heavily on transfer payments with a larger relative share from medical programs. With poverty rates in excess of 20 percent for several decades, persistent-poverty counties relied on transfer payments for more than 26 percent of overall personal income with disproportionate shares of transfers coming from medical and income maintenance benefits via programs aimed at the poor.

The results of classifying nonmetro counties into three groups according to the share of personal income derived from transfer payments further confirm the linkage between the concentration of either elderly retirees or disadvantaged populations and economic reliance on transfer income. High-transfer counties—the top 25 percent of nonmetro counties—relied on transfers for 27 percent or more of county personal income. These counties tended to be concentrated in the Appalachian areas of West Virginia, Kentucky, the Black Belt counties of the Deep South including the Mississippi River Delta, parts of

Figure 4

Average annual change in real transfers per capita by residence

Transfer growth quickened in both rural and urban areas during the early 1990's



Source: Calculated by ERS using data from the Bureau of Economic analysis.

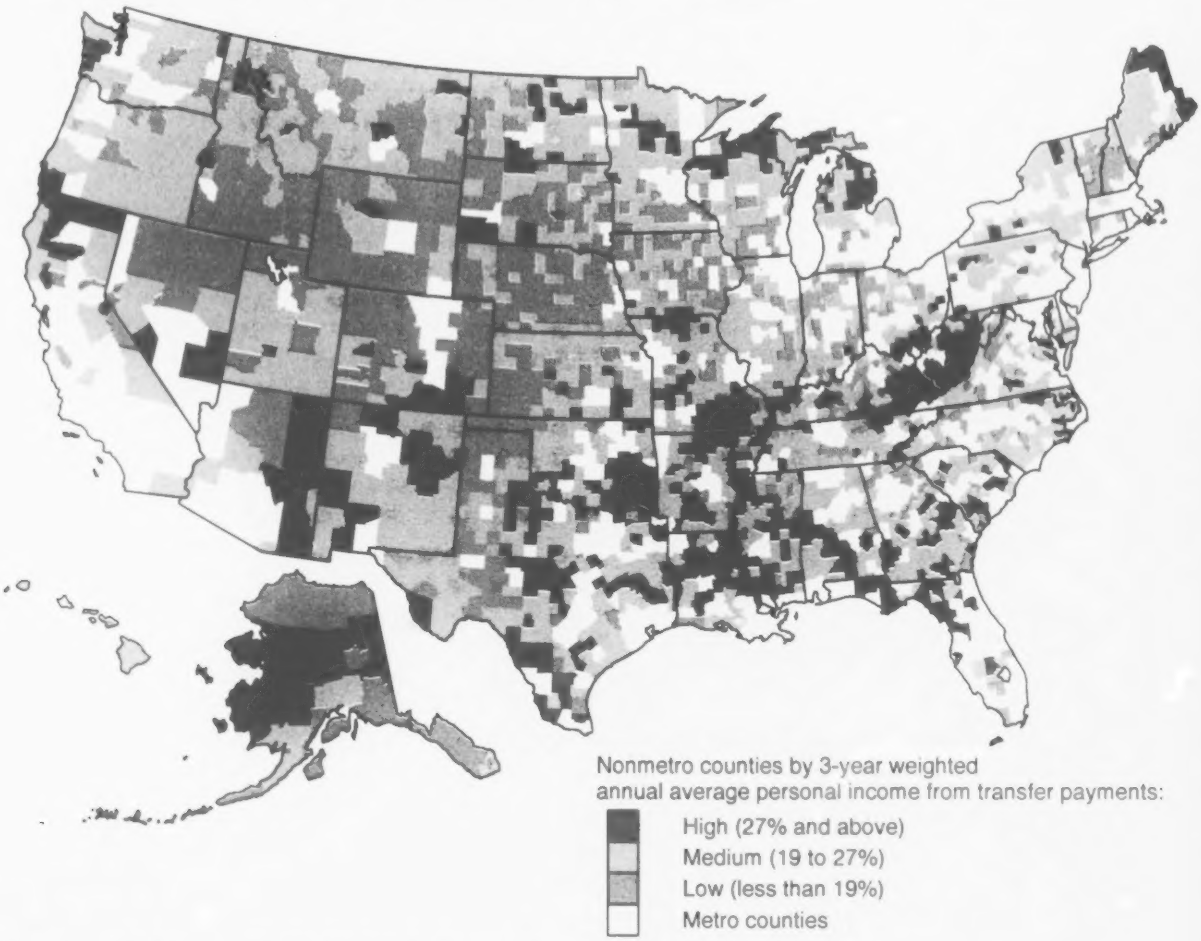
Texas with high Hispanic populations, Western counties with large Native American populations, and retirement areas in the Ozark region, upper New England, Florida, and California's northern coastal counties (fig. 5).

Several county types had a disproportionate share of counties that were also high-transfer counties. For example, over 60 percent of persistent-poverty counties, more than 30 percent of counties in the South and in retirement-destination counties, and over 40 percent of Black counties and Native American counties depended heavily on personal income from transfer payments. Many of the types also overlap with each other. *[Elizabeth M. Dagata, 202-219-0536, edagata@econ.ag.gov, and Peggy J. Cook, 202-219-0095, pross@econ.ag.gov]*

Figure 5

Nonmetro counties by economic reliance on government transfer payments, 1992-94

High-transfer counties include many persistent-poverty and minority counties


Nonmetro counties by 3-year weighted annual average personal income from transfer payments:
▇ High (27% and above)
▒ Medium (19 to 27%)
▓ Low (less than 19%)
☐ Metro counties

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Rural Poverty Rate Stabilizes

The rural poverty rate stabilized or declined during 1993-94 after increasing during the early 1990's. The poverty rate is still highest in the South, and rural minorities, women, and children are especially disadvantaged economically.

The poverty rate in rural America stood at 16.4 percent in 1994. This was lower than the corresponding rate in 1993 by 0.9 percentage point. Although the decrease is not statistically significant, it suggests that the upward trend of rural poverty since 1989 has slowed or reversed (fig. 1). The urban poverty rate also decreased, declining 0.6 percentage point to 14.0 percent. The poverty gap of 2.4 percentage points between rural and urban areas has remained about constant since 1991. The observed decline in rural poverty resulted primarily from increasing employment in rural America (see p.18) and, to a lesser extent, from improved earnings per job (see p. 22).

Rural Minorities Are Especially Disadvantaged Economically

The poverty rate among rural Blacks in 1994 was 36.4 percent (fig. 2), almost three times that of rural non-Hispanic Whites (13.0 percent) and well above that of urban Blacks (29.5 percent). The economic disadvantage of rural Hispanics also was substantial, evidenced by a poverty rate of 39.8 percent. Despite the higher incidence of poverty among minorities, two-thirds of the rural poor were non-Hispanic Whites.

Almost One-Quarter of the Children in Rural America Live in Poverty

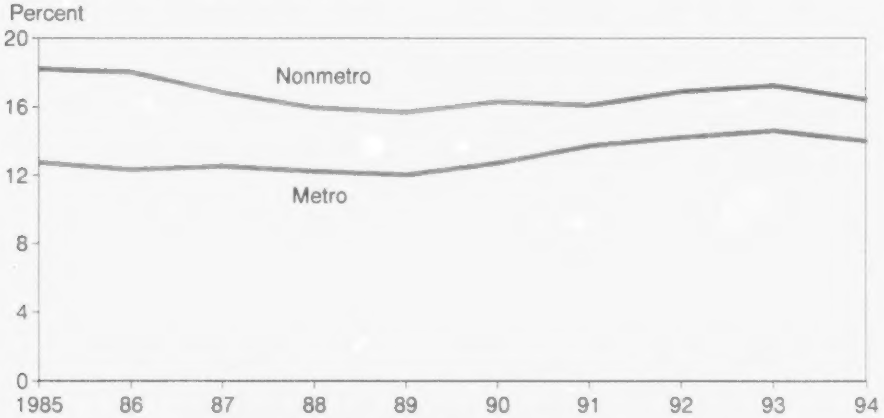
In 1994, 3.6 million rural children under the age of 18 lived in families with incomes below the poverty level. The poverty rate for rural children was 23.0 percent. For rural Black children, who face the combined economic disadvantages of rurality,minority status, and childhood, the poverty rate was 48.2 percent. The majority of rural poor children (59.1 percent) lived in single-parent families, most (53.2 percent) in female-headed families.

The poverty rate among the rural elderly (age 65 and above) was 14.2 percent. This was very near the poverty rate for rural working-age persons (14.0 percent), and substantially higher than that of the urban elderly (10.8 percent). Well over half of the rural elderly poor (55.7 percent) were women living alone.

Figure 1

Poverty rate by residence, 1985-94

The poverty rate in nonmetro counties declined in 1994 after a generally increasing trend during the early 1990's



Source: Calculated by ERS using data from the Bureau of the Census' P-60 series (1985-93) and March 1995 Current Population Survey.

HigherPoverty in Families Headed by Women

Rural women heading families or living alone experience particularly serious economic disadvantages. Although a large majority of the total rural population (70.6 percent) lived in two-parent families, half of the rural poor lived in families headed by women with no husband present or were women living alone. In 1994, the poverty rate for people living in rural female-headed families was 45.0 percent, and that for rural women living alone was 33.0 percent. By comparison, the poverty rate in rural two-parent families was 8.7 percent while that for rural men living alone was 21.4 percent.

Employment Status of the Rural Poor

More than 60 percent of the rural poor were in families with at least one working member or, if living alone, were employed at least part of the year (app. table 14). That proportion increased to nearly 70 percent when families with no working-age adults (under age 65) were excluded. Moreover, almost one-quarter of the rural poor (24.8 percent) were either in families with one or more full-time-full-year workers or were full-time-full-year workers living alone. The poverty rate among families with full-time-full-year workers and full-time-full-year workers living alone was substantially higher in rural (6.3 percent) than in urban areas (4.1 percent), reflecting the higher proportion of low-wage jobs in rural areas.

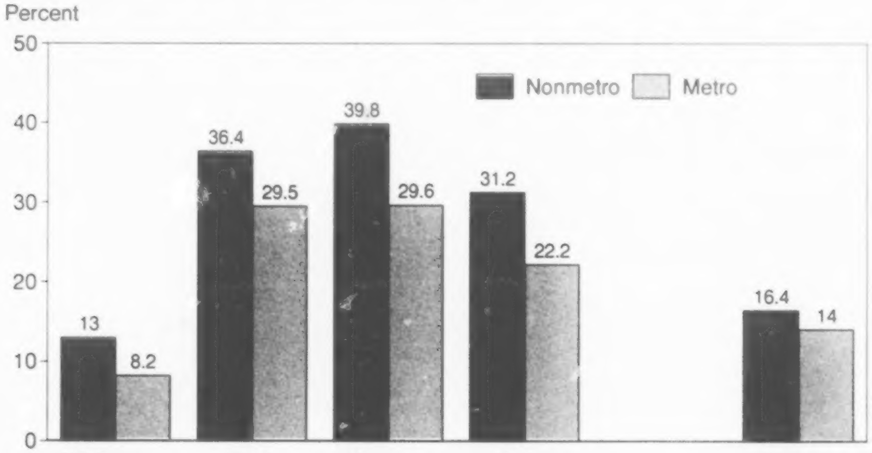
Rural Poverty Highest in the South

Almost half of the rural poor (49.4 percent) lived in the South (see p. 53 for definition of regions). The poverty rate of 19.6 percent in the rural South (fig. 3) was substantially higher than that in the rest of rural America (14.2 percent), and only in the South was the rural poverty rate dramatically higher than the corresponding urban poverty rate (15.1). Rural poverty rates were 16.5 percent in the West, 13.5 percent in the Central region, and 13.2 percent in the North (app. table 14). *[Mark Nord, 202-219-0554, marknord@econ.ag.gov]*

Figure 2

Poverty rates by race-ethnicity and residence, 1994

Nonmetro minorities experience the highest poverty rates; nonmetro poverty is higher than metro in each race-ethnic category



Source: Calculated by ERS using data from the March 1995 Current Population Survey.

Change in the Current Population Survey Sample Reduces Precision of the 1994 Poverty Estimates, But the Effects Are Not Serious

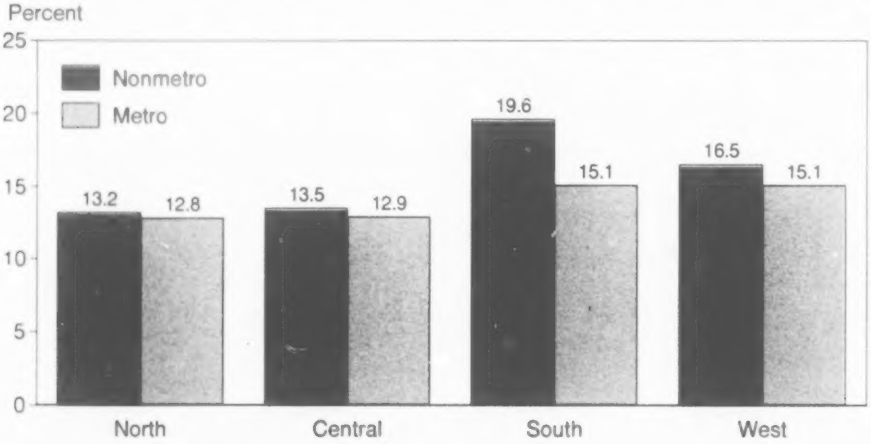
Poverty statistics for 1994 are based on the Current Population Survey (CPS) March 1995 Annual Demographic File (see appendix for description of data sources). The 1995 CPS file has two peculiarities that affect nonmetro poverty estimates. First, the CPS public-use file—our data source—continues to identify households as metro or nonmetro based on the old (1983) metro status of their place of residence. (The 1996 March CPS file will reflect the new 1993 metro definitions.) However, metro and nonmetro poverty rates published by the Census Bureau for 1994 are based on the new metro definition and differ somewhat from those presented here.

Second, nonmetro statistics based on the 1995 CPS file may have a somewhat larger margin of error than in other years because the mid-decade changeover to a new sample frame of households was only half completed in March 1995. Each decade, the Census Bureau constructs a new sample frame (list of households from which the sample is drawn) based on the population information from the decennial census. Households from the new sample frame are phased in over a period of 16 months, and the March 1995 sample was a mixture of households selected from the old and new sample frames in about equal proportions. To determine the extent to which poverty rate estimates were likely to be affected by this characteristic of the sample, we compared poverty rates of households from the old and new sample frames. For overall metro and nonmetro poverty rates and for the regions and population groups reported here, the differences between the old and new samples were very near the average differences that would be expected between two samples drawn from the same sample frame (about one standard deviation). This indicates that the change in sample frames did not seriously affect the reliability of these poverty estimates. To assess whether the change in the poverty rate from the previous year was statistically significant, the 1993 estimate was compared with the 1994 estimate based on households from the old sample frame only.

Figure 3

Poverty rates by region and residence, 1994

The South has the highest rate of rural poverty and the largest nonmetro-metro poverty gap



Note: See p. 53 for definition of regions.
Source: Calculated by ERS using data from the March 1995 Current Population Survey.

Farm Operator Household Income Compares Favorably With All U.S. Households, But Varies by Geography and Size of Farm

On average, farm operator household income was about the same as the average for all U.S. households in 1994. The average farm operator household received its income from various sources, but only 10 percent was from the farm. Commercial farm households, however, received half of their income from farming. Sources of income also varied geographically, reflecting differences in the concentration of commercial farms.

The average income of farm operator households compares favorably with that of other U.S. households. According to recent estimates from the U.S. Department of Agriculture's Farm Costs and Returns Survey (see appendix, pp. 50-51), farm operator households averaged $42,500 in income from all sources in 1994. Average farm household income was 98 percent of the average for all U.S. households.

Sources of Income Vary With Farm Size

In 1994, 90 percent of operator household income came from off-farm sources, mostly from wages, salaries, and nonfarm businesses (fig. 1). Sources of income, however, vary with the characteristics of the operator and the farm (app. table 15). For example, dependence on off-farm income generally decreases with increasing farm size, as measured by sales of agricultural products.

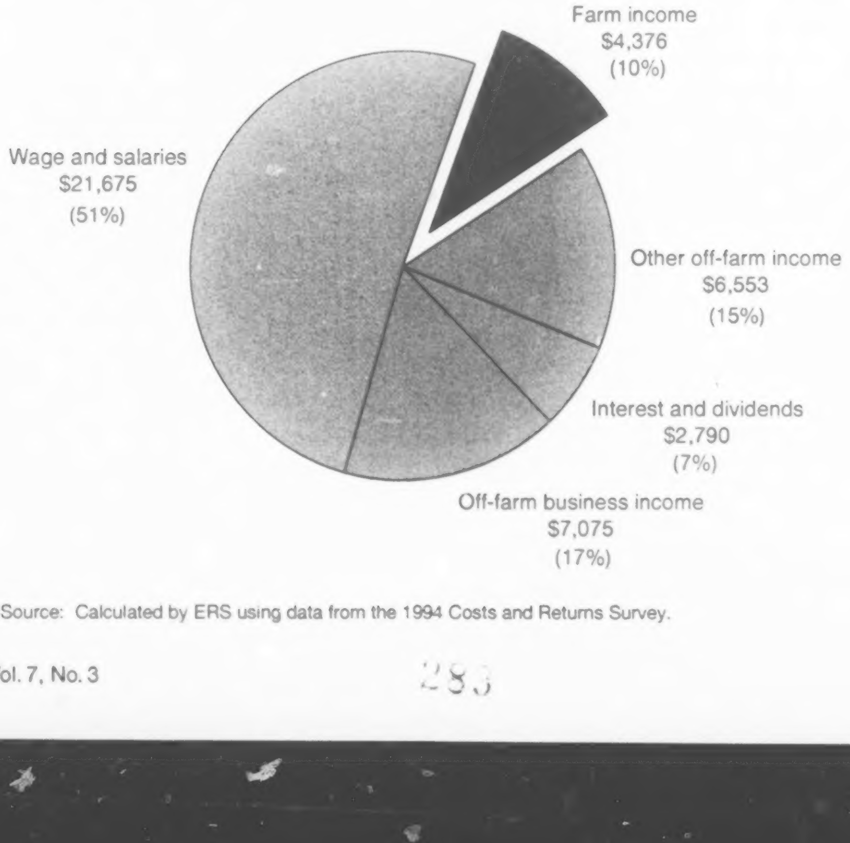
Most operators of noncommercial farms (sales less than $50,000) reported a major occupation other than farming in 1994 or considered themselves retired. On average, households of these operators lost money farming in 1994, and depended on off-farm sources for virtually all their living expenses.

In contrast, households with commercial farms (sales of $50,000 or more) depended on off-farm income for only half of their income. Combining farm and off-farm income was an effective strategy for these households. Operator households running commercial farms

Figure 1

Sources of income for the average farm operator household, 1994

Because so many farm households depend of off-farm jobs and income, farm income accounts for only 10 percent of total household income



Source: Calculated by ERS using data from the 1994 Costs and Returns Survey.

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averaged substantially higher total income ($54,100) in 1994 than households running noncommercial farms ($38,200).

The percentage of income from off-farm sources did not vary much by location for households with commercial or noncommercial farms. For households with commercial farms, the percentage ranged from 48 to 56 percent (table 1). For households with noncommercial farms, the percentage ranged from 102 to 116 percent. (When farm income is negative and off-farm income is positive, off-farm income is more than 100 percent of total income.)

Operator Household Income Varies Geographically

The level and sources of operator household income varied geographically, and differences in the concentration of commercial farms help explain the variation in dependence on off-farm income. Operator households in areas with the highest concentrations of commercial farms generally were the least dependent on off-farm income.

Operator Household Income Is Highest in the West . . .

Average operator household income reached $57,000 in the West, substantially higher than in the other regions (fig. 2). Western operator households running commercial farms had a particularly high average income ($82,800) compared with the average for all operator households or all households with a commercial farm. In part, the high household income of commercial farmers in the West reflects their specialization in high-value specialty crops—vegetables, fruits, tree nuts, and greenhouse/nursery products. About 27 percent of households with commercial farms in the West specialized in these crops, compared with only 8 percent nationally.

Table 1

Geographic variation in the sources of operator household income, by size of farm, 1994

Share of income from off-farm sources varies little by location for households with commercial or noncommercial farms

Geography	Off-farm income as share of total for households with[1]— Commercial farms[2]	Noncommercial farms	Any farm	Operator households with commercial farms
	Percent			
U.S. total	52	109	90	27
Region:				
North	53	111	93	28
Great Plains/Corn Belt	53	105	83	39
South	55	109	95	16
West	48	116	86	30
Metro status:				
Metro	49	111	93	22
Nonmetro	54	108	87	29
Adjacent	54	111	91	25
Nonadjacent	55	105	84	34
Economic specialization:[3]				
Farming-dependent	51	102	75	48
Other nonmetro	56	109	91	24

[1] Income from off-farm sources can be more than 100 percent of total household income, if farm income is negative.

[2] Commercial farms have sales of $50,000 or more.

[3] Nonmetro counties only.

Source: Calculated by ERS using data from the 1994 Farm Costs and Returns Survey.

The South had the largest number of farm operator households (nearly 750,000), but only 16 percent of these households ran commercial farms. Average operator household income in the South was about equal to the U.S. average. Only operator households in the West had higher average income.

The average for all operator households in the South, however, masked high income earned by the small percentage of households operating commercial farms. Average total household income for households with commercial farms was $67,200, substantially higher than the corresponding estimates for similar households in the North or the Great Plains/Corn Belt. Southern households running commercial farms had substantially larger farm and off-farm income than the corresponding households in the two other regions.

The Great Plains/Corn Belt had the highest concentration of operator households with commercial farms (39 percent) (table 1). The region's operator households also depended less on off-farm income than those in the North and South. The difference in dependence on off-farm income between the Great Plains/Corn Belt and the West, however, was not statistically significant. (For data for major farming regions, see app. table 15).

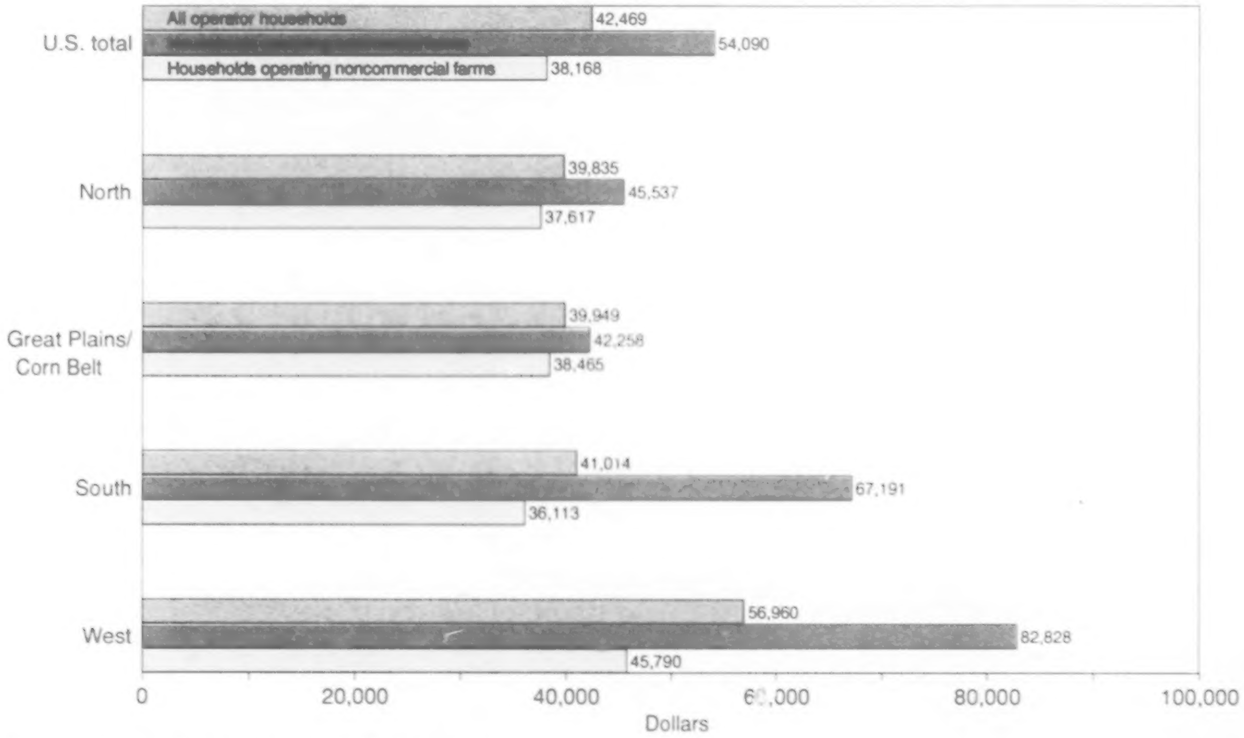
. . . And Metro Areas

Metro operator households averaged substantially higher total income ($52,100) than their nonmetro counterparts ($37,900) (fig. 3). The larger metro income was largely due to a $15,400 difference in average off-farm income. Average farm income was at similar levels in both areas, less than $5,000. For metro farm operators, the greater off-farm employment opportunities available locally are an important advantage.

Figure 2

Average operator household income by region and size of farm, 1994

Income of households with commercial farms is highest in the South and West



Note: Commercial farms have sales of $50,000 or more.

Source: Calculated by ERS using data from the 1994 Farm Costs and Returns Survey.

Although only about one-fifth of metro operator households ran commercial farms, farming contributed substantially to their income. In metro areas, commercial farm households averaged $65,800 in total income, $16,000 more than in nonmetro areas. Farm income accounted for about $11,000 of the difference.

Farm specialization explains part of the difference in farm-related income between metro and nonmetro households operating commercial farms. About 22 percent of metro households with commercial farms specialized in high-value specialty crops, compared with 3 percent of their nonmetro counterparts. Nearly three-fourths of the households operating commercial farms specializing in these crops were located in metro areas.

Operators of farms in nonmetro areas are more likely to run commercial farms than operators in metro areas (table 1). As a result, dependence on off-farm income was less in nonmetro areas (87 percent) than in metro areas (93 percent). Similarly, households in nonadjacent areas were more likely to run commercial farms than households in adjacent areas and depended less on off-farm income than households in adjacent areas.

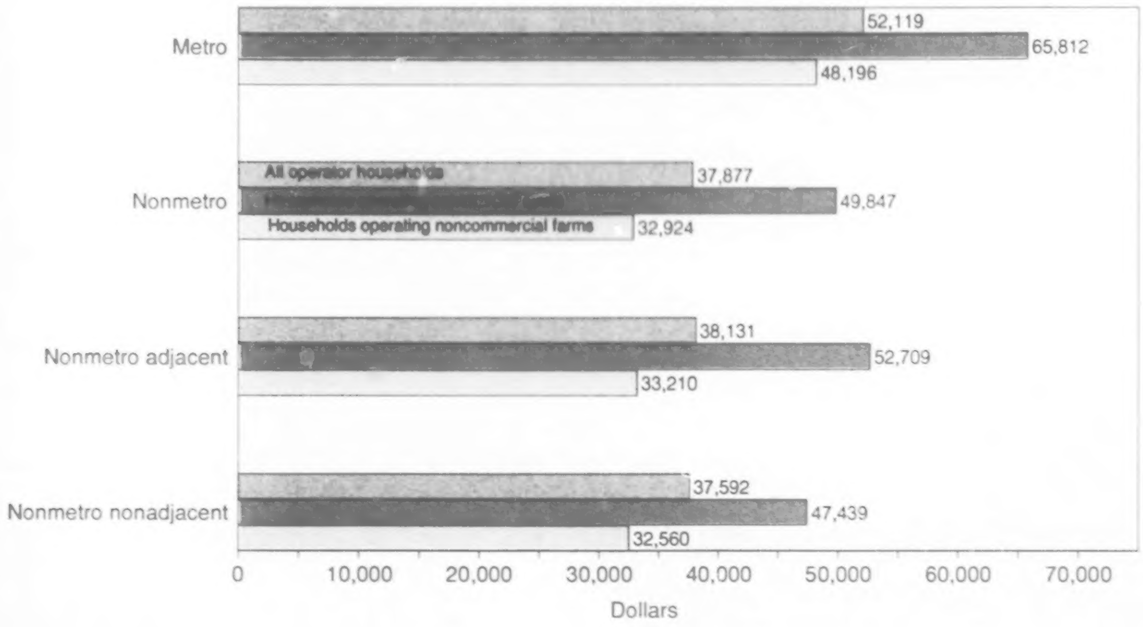
Farming-Dependent Counties Rely Less on Off-farm Income

By definition, farming-dependent counties have a large local farm sector relative to other types of business. Not surprisingly, farming-dependent counties also had a higher portion of households with commercial farms and a lower share of household income from off-farm sources than other nonmetro counties (table 1). Half the households with commercial farms in farming-dependent counties specialized in cash grain, compared with only one-third in other nonmetro counties.

Figure 3

Average operator household income by metro status and size of farm, 1994

Metro farm operator households receive more income than their nonmetro counterparts



Note: Commercial farms have sales of $50,000 or more.
Source: Calculated by ERS using data from the 1994 Farm Costs and Returns Survey.

Total operator household income for all operators was of similar magnitude in farming-dependent and other nonmetro counties (fig. 4). But, income of households running commercial farms was substantially lower in farming-dependent counties ($39,400) than in other nonmetro counties ($55,700). This resulted largely from differences in off-farm income. Off-farm income accounted for about two-thirds of the $16,300 difference between the two areas in total income for households with commercial farms.

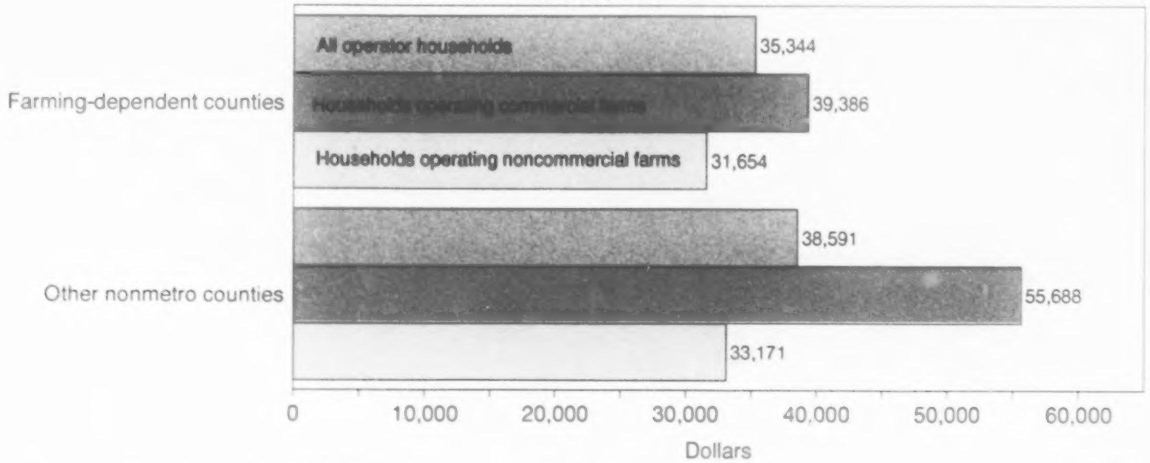
Off-farm Income Is Important Regardless of Farm Size or Location

Farm operator households depend heavily on off-farm sources of income. Although households with commercial farms do rely less on off-farm sources, even they receive about half of their income from off-farm sources. Regardless of where they live, the local off-farm economy is important to farm households with either commercial or noncommercial farms. Off-farm income can help buffer farm operator households from bad economic conditions that occur in the farm sector from time to time. On the other hand, a household's farm income may prove crucial if the local economy deteriorates. *[Robert A. Hoppe, 202-501-8308, rhoppe@econ.ag.gov, and Judith Z. Kalbacher]*

Figure 4

Average operator household income by nonmetro county specialization and size of farm, 1994

Households operating commercial farms outside farming-dependent counties have high income



Note: Commercial farms have sales of $50,000 or more.
Source: Calculated by ERS using data from the 1994 Farm Costs and Returns Survey.

Weekly Earnings for Hired Farmworkers Decrease, and Education Levels Show Little Improvement

Real median weekly earnings for full-time hired farmworkers decreased during the first half of the 1990's, while education levels for farmworkers as a group changed little. The large number of less-educated foreign nationals in the hired farm work force contributed to low education levels.

Hired farmworkers comprise a small share (less than 1 percent) of U.S. wage and salary workers but fill an important need for labor during critical production periods when labor demand exceeds that which can be supplied by farm operators and their families. Typically, hired farmworkers account for about a third of the farm work force with farm operators and unpaid workers accounting for the remaining two-thirds. Despite their importance to agriculture, hired farmworkers continue to be one of the most educationally and economically disadvantaged occupational groups in the United States. During the early 1990's, the median weekly earnings of full-time hired farmworkers actually declined after adjusting for the effects of inflation. The seasonal and sporadic nature of farmwork further limited their earnings and income. At the same time, farmworkers' generally low educational levels have shown little improvement during the last 5 years.

An annual average of 832,000 persons aged 15 and over did hired farmwork each week as their primary employment during 1995, according to data from the Current Population Survey (CPS) earnings microdata file. Hired farmworkers include persons who reported their primary employment during the week as farm managers (7 percent), supervisors of farmworkers (4 percent), nursery workers (3 percent), and farmworkers engaged in planting, cultivating, and harvesting crops or attending to livestock (86 percent). Some of these hired farmworkers work in jobs in agricultural services and other agriculture-related industries.

The number of hired farmworkers decreased 12 percent between 1990 and 1994. This pattern follows a long-term decline in hired farm employment resulting from decreases in the number of farms, increased mechanization, and other technological advances, such as higher yielding crops, improved chemicals, and irrigation equipment, that reduced labor requirements on U.S. farms. The number of farmworkers increased between 1994 and 1995, although the change was not significant.

Large Numbers of Foreign Nationals Contributed to Low Educational Levels of Hired Farmworkers

Hired farmworkers are more likely than all wage and salary workers to be male, younger, never married, and less educated (app. tables 16 and 17). They are also more likely than other workers to be foreign nationals who are citizens of other countries. About 37 percent of hired farmworkers were foreign born, non-U.S. citizens in 1995, compared with 8 percent of all wage and salary workers. Over 90 percent of these foreign nationals employed in farmwork identified themselves as Mexican or Chicano. In contrast, about 30 percent of all foreign nationals employed at wage and salary work in the United States identified themselves as Mexican or Chicano. The majority of these foreign national farmworkers were employed in crop production in the West. The number of foreign nationals doing hired farmwork reported here may include some workers who are in this country illegally. However, illegal workers generally tend to avoid official data collection because of their illegal status and are not likely to be included in these data.

The presence of large numbers of foreign nationals in the farm work force contributed substantially to the low educational levels of hired farmworkers as a group. Almost 90 percent of these noncitizen hired farmworkers had completed less than 12 years of education compared with 45 percent of hired farmworkers who were U.S. citizens. Regardless, both groups had considerably lower educational levels than all U.S. wage and salary workers, of which 13 percent had not completed 12 years of schooling. Unlike most occupations, lack of formal education does not hinder entry to farmwork, but limited schooling serves to limit farmworkers' access to higher paying, more stable nonfarm jobs.

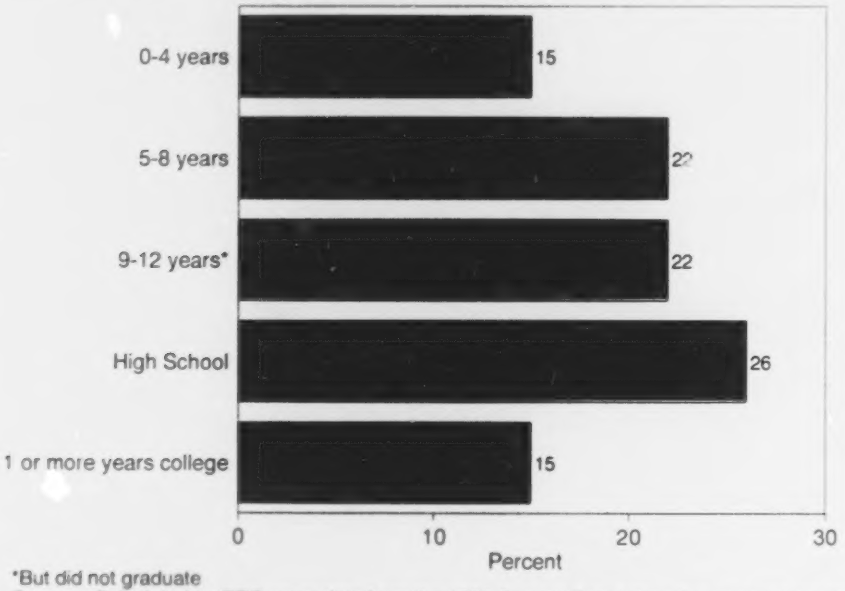
Hired Farmworker Earnings Remained Lower Than Those for Other Workers

Hired farmworkers earned significantly less than most other workers. Among full-time workers (working 35 or more hours per week), hired farmworkers received median weekly earnings of $260, or 65 percent of the median $440 earned by all U.S. wage and salary

Figure 1

Distribution of hired farmworkers by schooling completed, 1995

More than half of farmworkers have not graduated from high school



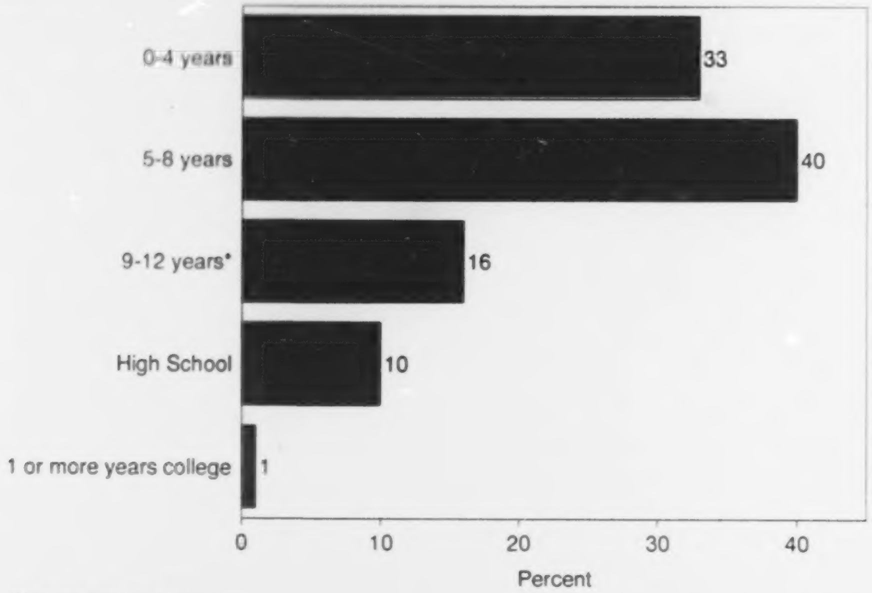
*But did not graduate

Source: Calculated by ERS using data from the 1995 Current Population Survey earnings file.

Figure 2

Distribution of noncitizen hired farmworkers by schooling completed, 199

Almost three-fourths of non-citizen hired farmworkers have only an elementary education



*But did not graduate

Source: Calculated by ERS using data from the 1995 Current Population Survey earnings file.

workers. Median weekly earnings ranged from $715 for full-time professional specialties to $200 for private household workers, with only private household workers receiving lower weekly earnings than hired farmworkers. Also, weekly earnings for full-time farmworkers deteriorated between 1990 and 1995, falling by 7 percent after adjusting for the effects of inflation. Earnings for all U.S. wage and salary workers increased by 2 percent between 1990 and 1995.

The decline in farmworker earnings is consistent with the apparently declining demand, shown by the downward trend in the number of hired farmworkers employed. At the same time, continued immigration of illegal aliens into this country to do farmwork has insured a constant if not increasing supply of labor. Economic theory suggests that a decline in demand for labor combined with a constant supply of workers will depress wages as competition among workers for a limited number of jobs increases. Local labor shortages could drive wages up in some areas, but most farm labor experts agree that a more than adequate number of workers exists to meet current labor needs at the national level.

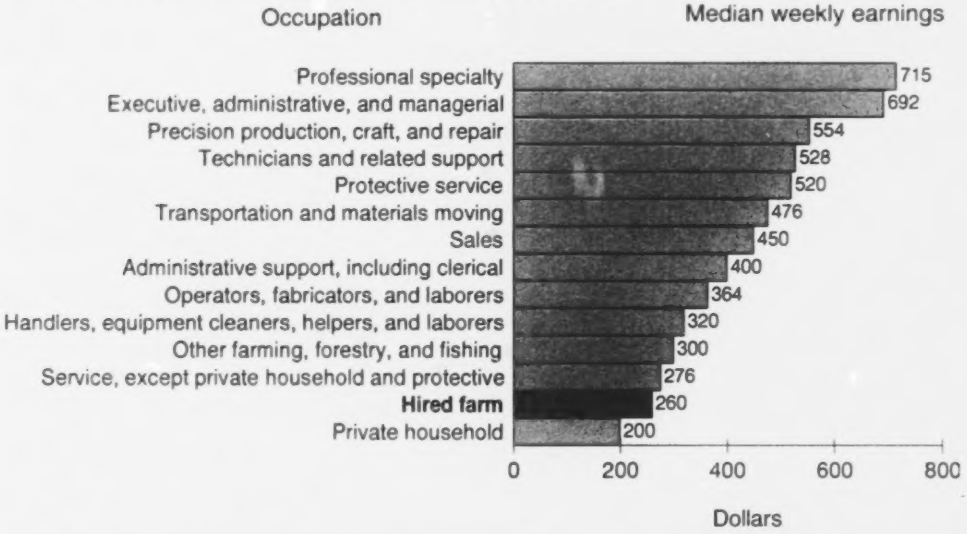
Because of the seasonal nature of agriculture, much hired farmwork is short-term and unsteady. In most areas of the country, labor use increases during the spring as planting and cultivating begin, peaks during the harvest season in late summer and early fall, and drops off sharply in the late fall and winter after the harvest is completed. Florida represents an exception to the usual pattern in that employment peaks in the winter when crops such as citrus fruits, sugarcane, and many vegetables are harvested. As a result, few hired farmworkers have year-round jobs. In 1995, the number of hired farmworkers employed in June was almost 1.5 times the number employed in December.

The seasonality of employment and low earnings make hired farmwork one of the lowest paying occupational groups in the United States. Many hired farmworkers seek nonfarm jobs to supplement their incomes. However, their low education levels and limited labor market skills often make competition for higher wage, nonfarm jobs more difficult.

Figure 3

Median weekly earnings of full-time wage and salary workers by occupation, 1995

Hired farmworkers rank near bottom of major occupational groups



Source: Calculated by ERS using data from the 1995 Current Population Survey earnings microdata file.

Regional Data Show Patterns of Labor Use

Labor expenditure data for hired and contract workers are often used as an indicator of farm labor use and illustrate the relative importance of farm labor across the country. According to data from the Census of Agriculture, farm operators spent over $13 billion for hired and $2.3 billion for contract labor in 1992, accounting for 12 percent of total U.S. farm production expenses. Hired labor expenses include gross salaries and wages as well as supplemental costs for benefits such as employers' Social Security contributions and unemployment compensation. Contract labor expenses include the labor costs for workers furnished on a contract basis by a contractor, crew leader, or cooperative.

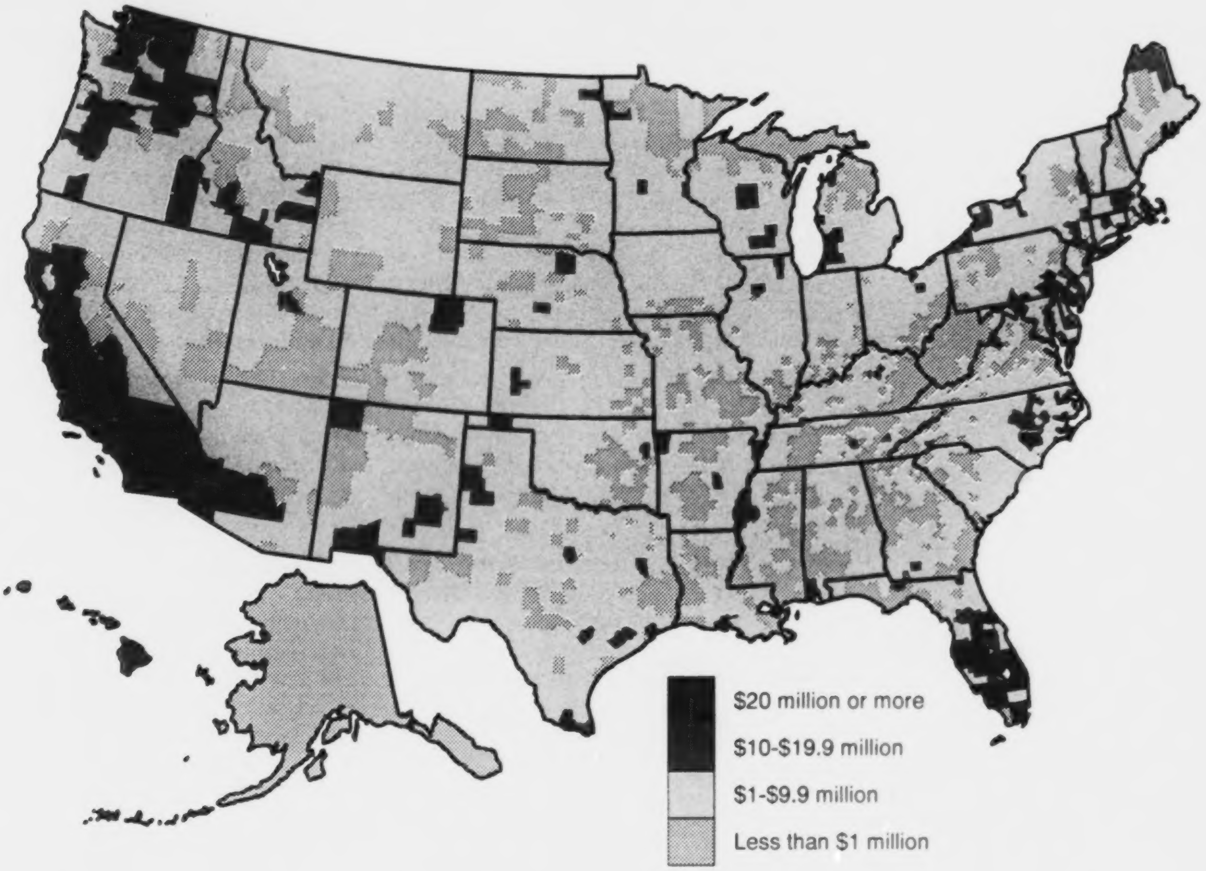
Labor use varies significantly across farms by the type, size, and geographic location of the farm. The largest users of hired and contract labor were fruit and tree nut, vegetable, and horticultural specialty farms. These farms accounted for only 7 percent of farms but 40 percent of all labor expenses. Labor was also concentrated on larger farms with sales of $500,000 or more where the labor needs exceed those provided by the farm family. Large farms accounted for less than 2 percent of U.S. farms but over 50 percent of all labor expenditures.

California had the greatest number of high-labor-expense counties of any State. Fresno County, California, led the country with hired and contract labor expenses of $412 million in 1992, greater than labor expenses in each of 46 States. California accounted for 25 percent of total U.S. farm labor expenses, followed by Florida (7 percent) and Texas (6 percent). In California and Florida, the more-labor intensive fruit and tree nut, vegetable, and horticultural specialty farms were the chief farm types responsible for the high labor expenses. High labor expenses in Texas were due primarily to a large number of less labor-intensive beef, hog, and sheep farms. These three States combined with Washington, North Carolina, Wisconsin, Oregon, and Pennsylvania accounted for over half of all farm labor expenses in 1992. Farm labor issues would be particularly important in these areas where farm labor use is concentrated. However, farm labor use is widespread across the United States and most counties, both metro and nonmetro, had farm labor expenses of at least $1 million in 1992. *[Jack L. Runyan, 202-219-0937, jrunyan@econ.ag.gov, and Leslie A. Whitener, 202-219-0935, whitener@econ.ag.gov]*

Figure 4

Hired and contract labor expenditures, 1992

California, Florida, and Texas counties account for 38 percent of all farm labor expenses


$20 million or more
$10-$19.9 million
$1-$9.9 million
Less than $1 million

Source: Calculated by ERS using data from the 1992 Census of Agriculture.

Data Sources

Population and migration data: Population and migration data in this issue are from two different data sources. Estimates of population change, net migration, and natural increase reported in the first article are from the Bureau of the Census county population estimates issued annually. These estimates are based on the 1990 Census with changes in subsequent years based on components of change in births, deaths, and migration. Migration estimates are derived as a residual by subtracting natural population increase from actual increases. Estimates include net gain from other counties as well as the institutional population.

Migration data reported in the second article are from the Internal Revenue Service. The Internal Revenue Service compiles annual, county-level data by matching current year tax returns with those from the previous year and comparing addresses. If a county or residence is different in the previous year, members of that family are considered migrants. If the county is the same or no matching return is found, they are considered nonmigrants. The number of exemptions claimed on the return serves as a proxy for the number of migrants in that family. Most people file their returns during early to mid-April, so the data here refer to flows from April of 1 year to April the next. The article in this issue describes migration changes using two sets of flows, 1988-89 and 1993-94.

Employment data: Data on nonmetro employment and unemployment reported in this issue come from Bureau of Labor Statistics county-level employment data files. These data are taken from unemployment insurance claims and State surveys of established payrolls which are then benchmarked to State totals from the CPS. The BLS data series provides monthly estimates of labor force, employment, and unemployment for individual counties.

Income, poverty, and transfer payment data: The household income and poverty data reported in this issue were calculated from the March CPS. Every year, the March CPS includes supplemental questions on sources and amounts of money received during the previous calendar year and poverty status. Information on family size and income is used to estimate the number of families and individuals in poverty based on official guidelines issued by the Office of Management and Budget. Demographic data are available to examine the distribution of income and the characteristics of the poverty populations in metro and nonmetro areas.

Information on personal income and transfer payments derives from the Bureau of Economic Analysis (BEA) employment and income data. BEA estimates annual earnings, proprietor's income, transfer payments, and other personal income at the county level based primarily on administrative records. Annual estimates of transfer payments reported in this issue are based on administrative data from the Department of Health and Human Services, the Department of Veterans Affairs, the Department of Labor, the Office of Personnel Management, the Bureau of the Census, the USDA, and the IRS. Note that BEA's estimates of personal income include in-kind sources, such as Medicare, and food stamp benefits. The CPS collects data only on money income, so the two sources provide different income estimates. A shortcoming of BEA data is the 2-year lag between when they are collected and when they are available for analysis.

Farm household income data: Farm household income data are from the Farms Costs and Returns Survey (FCRS). The FCRS is a probability-based survey in which each respondent represents a number of farms of similar size and type. Thus, sample data can be expanded using appropriate weights to represent all farms in the contiguous United States. The FCRS is conducted annually by the Economic Research Service and the National Agricultural Statistics Service in all States except Alaska and Hawaii. For the 1994 calendar year, usable data were collected from more than 7,000 farms and ranches.

Estimates based on an expanded sample differ from what would have occurred if a complete enumeration had been taken. However, the relative standard error (RSE), a measure of sampling variability, is available from survey results. The RSE is the standard error of the estimate expressed as a percentage of the estimate. According to the guidelines for use of the FCRS, any estimate with an RSE greater than 25 percent must be identified. Fortunately, none of the FCRS data reported in this issue have RSE's that high.

The standard error of the estimate can also be used to evaluate the statistical differences between groups. The article on operator household income emphasizes differences between groups only when estimates were significantly different at the 95-percent level.

Farm labor data: Information on the characteristics and earnings of hired farmworkers are from the CPS earnings microdata file. Each month, the CPS collects labor force information based on respondents' activity during 1 week during the month. In addition, workers in about a quarter of the CPS households are asked questions on usual weekly hours worked and earnings. The CPS earnings microdata file consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during the year. The 1994 data file contained information on almost 500,000 persons. Data on hired and contract labor expenditures are from the 1987 and 1992 Censuses of Agriculture. The Census of Agriculture, conducted every 5 years by the Bureau of Census, is the leading source of statistics about the Nation's agricultural production, including farm labor use. The census is a mail survey of the Nation's farms. To reduce respondent burden, some questions, such as labor expenditures, were asked of a sample of farms.

Definitions

The data reported in this issue of *Rural Conditions and Trends* are for nonmetropolitan (nonmetro) and metropolitan (metro) areas, but we use the terms "rural" and "urban" interchangeably with "nonmetro" and "metro," the original and more accurate terms used in the data sources.

Family: Family is defined as two or more people residing together who are related by birth, marriage, or adoption.

Farm: Any place from which $1,000 or more worth of agricultural products are sold or normally would be sold in a year.

Farm household income: The total income of farm operator households includes income from both farm and off-farm sources. Farm income to the household includes net cash farm income less depreciation, adjusted for the share received by the primary operator household in the case of multiple-household farms. Farm household income also includes the income that all farm household members received from all other sources. The definition of farm operator household income is consistent with the definition of household income used by the Bureau of the Census in the Current Population Survey.

Farm operator households: The households of primary operators of farms organized as individual operators, partnerships, and family corporations. Farm operator households exclude households associated with farms organized as nonfamily corporations or cooperatives, as well as households where the operator is a hired manager. Household members include all persons dependent on the household for financial support, whether they live in the household or not. Students away at school, for example, are counted as household members if they are dependents.

Hired farmworkers: Persons aged 15 and older who did farm work for cash wages or salary, including persons who manage farms for employers on a paid basis, supervisors of farmworkers, and general farm and nursery workers.

Household: Households consist of all persons living in a housing unit. A house, an apartment, or a single room is considered a housing unit if it is occupied as separate living quarters. To be classified as separate living quarters, the occupants of the housing unit must not live and eat with any other people in the structure.

Household income: The sum of the amounts of money received from wages and salaries, nonfarm self-employment income; farm self-employment income; Social Security or railroad retirement; Supplement Security Income; cash public assistance or welfare payments; dividends, interest, or net rental income; veterans payments; unemployment or workers' compensation; private or government employee pensions; alimony or child support and other periodic payments for all household members.

Inflation rate: The percentage change in a measure of the average price level. The two measures of the average price level used in this issue are the Consumer Price Index and the implicit Personal Consumption Expenditures Deflator (earnings, income, poverty, and transfer payments articles).

Major farming regions:

Northeast—Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Lake States—Michigan, Minnesota, Wisconsin.

Corn Belt—Illinois, Indiana, Iowa, Missouri, Ohio.

Northern Plains—Kansas, Nebraska, North Dakota, South Dakota.

Appalachian—Kentucky, North Carolina, Tennessee, Virginia, West Virginia.

Southeast—Alabama, Florida, Georgia, South Carolina.

Delta—Arkansas, Louisiana, Mississippi.

Southern Plains—Oklahoma, Texas.

Mountain—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.

Pacific—California, Oregon, Washington.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 Census. Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Minority counties: Refers to three categories of minority counties—Black, Hispanic, and Native American—defined as having 20 percent or more of county population made up of the minority group according to 1990 census data.

Nonfarm earnings: The sum of wage and salary income, other labor income, such as privately administered pension and profit-sharing plans, and current production income of nonfarm sole proprietorships, partnerships, and tax-exempt cooperatives.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, rural and nonmetro are used interchangeably to refer to people and places outside of MSA's.

Personal income: Personal income is the estimated total income (cash and goods) received by, or on behalf of, all residents of an area from all sources: salaries and wages, other labor income (such as employer contributions to private pension/profit-sharing plans, and private group health and life insurance plans), net income from the operation of a business (proprietors' income), dividends, interest, net rent, and transfers payments to individuals and nonprofit institutions by government and business less contributions to social insurance programs like Social Security, State and Federal retirement plans. The term total personal income emphasizes that earned income (wages, salary, proprietors income) has been combined with unearned income (dividends, interest and rent and transfer payments).

Population growth types: Modest growth is below the national average of 5.6 percent during 1990-95; rapid growth is above it.

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Poverty: A person is in poverty if his or her family's money income is below the official poverty threshold appropriate for that size and type of family. Different thresholds exist for elderly and nonelderly unrelated individuals, for two-person families with and without elderly heads, and for different family sizes by number of children. For example, the poverty threshold for a family of four with two children was $15,029 in 1994. The thresholds are adjusted for inflation annually using the Consumer Price Index.

Region: Most articles in this issue use the modified regional delineation introduced in the Spring 1995 issue to help understand 1990-94 changes in rural areas. The States in each region are as follows:

North—Connecticut, Delaware, District of Columbia, Indiana, Maine, Maryland, Michigan, Massachusetts, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Central—Illinois, Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, Oklahoma, and South Dakota.

South—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Rural-urban continuum codes: Classification system developed by ERS to group counties by the size of their urban population and their adjacency to larger areas. (See Margaret A. Butler and Calvin L. Beale, *Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993*, AGES 9425, U.S. Department of Agriculture, Economic Research Service, Sept. 1994).

Metro counties—

Central counties of metro areas of 1 million population or more

Fringe counties of metro areas of 1 million population or more

Counties in metro areas of 250,000 to 1 million population

Counties in metro areas of fewer than 250,000 population

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area

Urban population of 20,000 or more, not adjacent to a metro area

Urban population of 2,500 to 19,999, adjacent to a metro area

Urban population of 2,500 to 19,999, not adjacent to a metro area

Completely rural or less than 2,500 urban population, adjacent to a metro area

Completely rural or less than 2,500 urban population, not adjacent to a metro area

Nonmetro adjacent counties—

Nonmetro counties physically adjacent to one or more metro areas and having at least 2 percent of the employment labor force in the county commuting to the central metro county

Transfer payments: Cash or goods that people and nonprofit institutions receive from government and some businesses (for example, liability payments) for which no work is currently performed. Receipt of transfer payments, however, may reflect work performed in the past. For example, elderly people receive Social Security now because they worked earlier in their lives and paid taxes to fund the program. In this issue, government transfers to individuals are grouped into six broad categories.

Retirement and disability programs—Social Security, railroad retirement, military retirement, Federal civilian, State and local government employee retirement; workers' compensation, State temporary disability programs; and black lung.

Medical programs—Medicare, Medicaid, and CHAMPUS (Civilian Health and Medical Plan of the Uniformed Services).

Income maintenance programs—Supplemental Security Income (SSI), Aid to Families with Dependent Children (AFDC), food stamps, general assistance, emergency assistance, refugee assistance, foster home care, earned income tax credits, and energy assistance.

Unemployment insurance—State unemployment compensation, unemployment compensation to Federal civilian employees, railroad employees and veterans; trade adjustment allowances; and other smaller unemployment programs.

Veterans' programs—Various programs administered by the Department of Veterans Affairs. Includes veterans' pensions, disability compensation, and other smaller programs.

Education, training, and other programs—Federal education and training assistance includes Federal fellowship payments (National Science Foundation fellowships and traineeships, subsistence payments to State maritime academy cadets, and other Federal fellowships), interest subsidy on higher education loans, basic educational opportunity grants, and Job Corps payments. Other programs include Bureau of Indian Affairs payments, education exchange payments, Alaska Permanent Fund dividend payments, compensation of survivors of public safety officers, compensation of victims of crime, Hurricane Hugo, and the Loma Prieta earthquake, compensation for Japanese internment, and other special government payments to individuals.

Note that payments from farm commodity programs are received as part of farmers' gross cash income from current farming activities. They are not transfer payments.

Typology Codes: Classification system developed and periodically revised by ERS to group counties by economic and policy-relevant characteristics. The typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR 89, U.S. Department of Agriculture, Economic Research Service, Dec. 1994.

Economic types (mutually exclusive, a county may fall into only one economic type):

Farming dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Mining dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Manufacturing dependent—Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Government dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Services dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance, insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years from 1987 to 1989.

Policy types (overlapping, a county may fall into any number of these types and one economic type):

Retirement-destination—The population aged 60 years and over in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land area in the year 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, 1990.

Transfers-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over the 3 years from 1987 to 1989. Note: The article dealing with transfer payments uses a different classification of transfer dependency whereby all nonmetro counties are ranked into quartiles according to the 3-year weighted average of personal income from transfer payments. Counties in the bottom quartile (low group) received less than 19 percent of personal income from transfer payments; those in the middle two quartiles (medium group) received from 19 to 27 percent of personal income from transfer payments; and those in the top quartile (high group) received 27 percent and over of personal income from transfer payments.

Unemployment rate: The number of unemployed people 16 years and older as a percentage of the civilian labor force age 16 years and older.

Appendix table 1—Population change, net migration, and natural increase by county types, 1990 to 1995

County type	Counties	Population change	Share of counties with increasing population	Net migration	Share of counties with net inmigration	Natural change	Snare of counties with natural increase
	Number	Percent					
Total nonmetro	2,292	5.1	75	3.1	67	2.0	74
Farming-dependent	556	3.2	49	1.6	46	1.6	53
Mining-dependent	146	2.7	65	.4	52	2.3	81
Manufacturing-dependent	506	4.5	89	2.6	76	2.0	90
Government-dependent	243	5.4	87	1.7	72	3.7	84
Services	323	7.3	85	5.6	76	1.7	73
Nonspecialized	484	5.2	81	3.7	75	1.5	74
Retirement	190	13.8	100	12.2	97	1.6	63
Recreational	282	9.8	93	7.4	89	2.3	79
Persistent poverty	535	4.3	75	1.6	60	2.8	83
Adjacent to large metro	184	7.0	92	4.7	86	2.3	85
Adjacent to small metro	805	5.3	84	3.3	75	1.9	83
Nonadjacent to metro	1,303	4.4	68	2.3	59	2.1	67
Metro	813	5.8	91	1.5	74	4.3	96

Notes: 1993 metro definition. County types are not mutually exclusive, except that farming, mining, manufacturing, government, services, and non-specialized types are mutually exclusive of each other. Recreational counties defined by Johnson and Beale in *Rural Conditions and Trends*, Vol. 5 No. 1, Spring 1994. Adjacency defined by Urban Influence Code, Ghelfi and Parker. All other types defined in Cook and Mizer, 1994 (see appendix, p. 54). Percent change is aggregate change for all cases in category. Number of counties reflects the aggregation of Virginia independent cities with their counties of orgin (see p. 8).

Source: Calculated by ERS using data from the Bureau of the Census.

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Appendix table 2—Regional population change from migration, 1988-89 and 1993-94

Region	1988-89			1993-94		
	In	Out	Net	In	Out	Net
	Percent change					
United States:						
Metro	6.3	6.3	0	6.1	6.2	-0.1
Nonmetro	6.2	6.2	0	6.6	6.0	.6
North:						
Metro	4.8	5.3	-.5	4.8	5.2	-.5
Nonmetro	5.6	5.2	.4	5.3	5.0	.3
Central:						
Metro	5.7	6.0	-.2	5.8	6.0	-.2
Nonmetro	5.7	6.2	-.5	6.3	6.0	.3
South:						
Metro	8.0	7.4	.6	7.9	7.1	.8
Nonmetro	6.1	6.1	0	6.7	6.0	.7
West:						
Metro	7.1	6.9	.2	6.2	6.5	-.3
Nonmetro	8.7	8.4	.3	8.9	7.5	1.4

Notes: 1993 metro definition. Percent change is aggregate change for all cases in the category. See p. 53 for definition of region.
Source: Calculated by ERS using data from the Internal Revenue Service.

Appendix table 3—Population change from migration by county types, 1988-89 and 1993-94

County type	Counties	1988-89			1993-94		
		In	Out	Net	In	Out	Net
	Number	Percent change					
Total nonmetro	2,307	6.2	6.2	0	6.6	6.0	0.6
Farming-dependent	556	5.6	6.5	-.8	6.6	6.4	.1
Mining-dependent	147	5.2	6.4	-1.2	5.8	5.7	.1
Manufacturing-dependent	516	5.4	5.1	.3	5.6	5.1	.5
Retirement	191	9.0	7.1	1.9	9.1	6.6	2.5
Federal lands	270	8.7	8.2	.5	9.1	7.5	1.5
Adjacent to metro	1,001	6.4	6.2	.2	6.6	6.0	.6
Nonadjacent to metro	1,306	5.9	6.1	-.2	6.5	5.9	.6
Metro	836	6.3	6.3	0	6.1	6.2	-.1

Notes: 1993 metro definition. County types are not mutually exclusive, except farming, mining, and manufacturing types are mutually exclusive of each other. See appendix, p. 53, for definition of adjacency. See appendix, pp. 54-55 for definition of other county types.

Source: Calculated by ERS using data from the Internal Revenue Service.

Appendix table 4—Population change from migration and regional share of counties by county migration types, 1993-94

		Population change from migration			Regional share of counties				
Item	Counties	In	Out	Net	All nonmetro	North	Central	South	West
	Number	Percent							
Total nonmetro	2,307	6.6	6.0	0.6	100	100	100	100	100
Low in; low out	1,084	5.0	4.7	.3	47	71	55	46	13
Low in; high out	279	5.9	6.7	-.7	12	6	18	12	6
High in; low out	160	5.0	4.7	.3	7	9	4	8	7
High in; high out	784	9.6	8.3	1.3	34	14	23	34	73

Note: A 6.4-percent inmigration rate divides counties into high and low "in" categories, with 50 percent of inmigrants in each category; a 6-percent outmigration rate does the same for "out" categories. See p. 53 for definition of region.

Source: Calculated by ERS using data from the Internal Revenue Service.

Appendix table 5—Annual employment change by residence, region, and county type

Item	1980-90	1990-95	1990-91	1991-92	1992-93	1993-94	1994-95
				Percent			
U.S. total	1.8	1.1	-0.9	0.7	1.5	2.4	1.8
Metro	2.0	1.0	-1.0	.5	1.3	2.4	1.8
Nonmetro	.9	1.6	-.1	1.6	2.0	2.7	1.7
Region:							
Metro—							
North	1.2	.1	-2.1	-.1	1.2	1.0	.8
Central	1.4	1.3	-.3	1.3	.4	2.7	2.4
South	2.7	1.9	.3	1.0	2.4	3.3	2.5
West	2.9	1.0	-1.3	.3	.9	3.2	2.1
Nonmetro—							
North	1.4	1.4	-.7	1.4	2.5	1.8	2.2
Central	-.1	1.4	.5	1.4	1.3	2.5	1.5
South	.9	1.4	-.2	1.5	1.8	2.8	1.2
West	1.6	2.5	.7	2.3	2.8	4.3	2.4
County type:							
Farming	0	1.4	.1	1.0	1.7	2.9	1.1
Mining	-.7	.5	-.2	-.8	.6	1.7	1.2
Manufacturing	1.0	1.4	-.7	1.6	1.9	2.6	1.6
Government	1.6	1.7	.2	2.0	1.7	2.5	2.1
Services	1.3	2.1	.7	1.9	2.6	3.4	1.9
Nonspecialized	.8	1.6	0	1.7	2.2	2.4	1.7
Retirement	3.1	2.4	1.1	2.6	2.7	3.6	2.2
Federal lands	1.8	2.5	.6	2.4	3.1	4.2	2.4
Commuting	1.5	1.7	-0	1.7	2.5	2.5	1.9
Poverty	.4	1.3	-.3	1.5	1.6	2.6	1.3
Transfers	.3	1.7	-.1	1.6	2.4	2.8	1.6
Urban-rural:							
Metro—							
Core	2.0	.6	-1.7	-.2	.9	2.3	1.6
Noncore	1.9	1.5	-.1	1.3	2.0	2.5	1.9
Nonmetro—							
Adjacent	1.2	1.5	-.2	1.5	1.9	2.6	1.7
Nonadjacent	.6	1.6	.1	1.7	2.0	2.8	1.6

Note: Data for 1995 are preliminary. See p. 53 for definition of region.
Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Appendix table 6—Average unemployment rate by residence, region, and county type

Item	1980-89	1990-95	1990	1991	1992	1993	1994	1995
				Percent				
U.S. total	7.3	6.3	5.5	6.7	7.4	6.8	6.1	5.5
Metro	6.9	6.2	5.3	6.5	7.2	6.7	6.0	5.4
Nonmetro	8.8	7.1	6.5	7.7	8.0	7.4	6.7	6.2
Region:								
Metro—								
North	7.0	6.3	5.4	6.9	7.6	6.7	5.9	5.4
Central	6.9	5.2	5.1	5.8	5.8	5.8	4.7	4.1
South	6.7	5.8	5.3	6.2	6.8	6.1	5.6	5.0
West	6.9	6.8	5.2	6.6	7.9	7.8	7.2	6.4
Nonmetro—								
North	8.8	7.1	6.4	8.0	8.3	7.3	6.6	5.9
Central	7.3	5.6	5.6	6.1	6.0	6.1	5.3	4.8
South	9.3	7.5	7.0	8.2	8.6	7.7	7.0	6.6
West	9.6	7.9	6.9	7.8	9.0	8.6	7.8	7.4
County type:								
Farming	7.9	6.6	6.0	6.7	7.4	7.0	6.5	6.2
Mining	10.8	8.8	7.4	9.1	10.3	9.7	8.5	7.9
Manufacturing	9.1	7.0	6.6	7.9	8.1	7.3	6.4	6.0
Government	8.8	7.4	7.0	7.9	8.2	7.7	7.3	6.6
Services	8.1	6.6	6.1	7.1	7.7	7.0	6.3	5.8
Nonspecialized	8.8	7.0	6.6	7.6	7.9	7.3	6.6	6.1
Retirement	8.6	7.4	6.3	7.5	8.5	8.0	7.3	6.8
Federal lands	9.6	7.7	6.9	7.9	8.8	8.2	7.3	7.0
Commuting	9.0	6.9	6.5	7.8	8.1	7.1	6.3	5.9
Poverty	10.6	8.6	8.1	9.2	9.6	8.9	8.3	7.8
Transfers	12.3	9.8	9.0	10.6	10.8	10.1	9.4	8.7
Rural-urban:								
Metro—								
Core	6.5	6.2	5.1	6.4	7.4	6.9	6.1	5.4
Noncore	7.4	6.1	5.6	6.6	7.1	6.5	5.8	5.3
Nonmetro—								
Adjacent	8.8	7.1	6.5	7.7	8.2	7.5	6.7	6.2
Nonadjacent	8.7	7.0	6.6	7.6	7.9	7.3	6.6	6.1

Note: Data for 1995 are preliminary. See p. 53 for definition of region.
Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Appendix table 7—Earnings per nonfarm job by industry

	Earnings per job			Annualized average change		Nonmetro-metro ratio		
Item	1980	1990	1994	1980-90	1990-94	1980	1990	1994
	1994 dollars			Percent		Ratio		
U.S. total	27,139	27,621	28,523	0	0.8	NA	NA	NA
Metro	28,104	28,880	29,919	.3	.9	NA	NA	NA
Nonmetro	22,639	21,294	21,826	-.6	.6	80.6	73.7	73.0
Nonmetro:								
Industry—								
Agricultural services, forestry, fishing	14,238	14,538	14,392	.2	-.3	90.2	84.1	87.1
Mining	45,990	35,056	37,270	-2.7	1.5	84.1	101.7	89.1
Construction	28,734	23,655	22,907	-1.9	-.8	81.7	72.4	72.5
Manufacturing	28,617	28,096	29,510	-.2	1.2	75.3	70.5	69.9
Transportation, public utilities	34,769	31,726	31,955	-.9	.2	83.3	80.3	78.6
Wholesale trade	28,039	25,422	26,218	-1.0	.8	76.2	66.4	66.8
Retail trade	15,373	13,754	13,772	-1.1	0	88.6	82.5	82.5
Finance, insurance, real estate	13,081	14,112	15,674	.8	2.7	60.5	55.5	52.2
Services	17,698	17,216	18,167	-.3	1.4	73.3	63.6	64.8
Government	21,036	23,556	24,430	1.1	.9	79.7	77.5	77.0
Metro:								
Industry—								
Agricultural services, forestry, fishing	15,837	17,280	16,524	0.9	-1.1	NA	NA	NA
Mining	54,659	34,453	41,827	-4.5	5.0	NA	NA	NA
Construction	35,150	32,657	31,580	-.7	-.8	NA	NA	NA
Manufacturing	38,013	39,854	42,244	.5	1.5	NA	NA	NA
Transportation, public utilities	41,763	39,497	40,652	-.6	.7	NA	NA	NA
Wholesale trade	36,786	38,283	39,249	.4	.6	NA	NA	NA
Retail trade	17,350	16,664	16,696	-.4	0	NA	NA	NA
Finance, insurance, real estate	21,605	25,437	30,048	1.6	4.3	NA	NA	NA
Services	24,140	27,073	28,046	1.2	.9	NA	NA	NA
Government	26,389	30,393	31,746	1.4	1.1	NA	NA	NA

Note: Some numbers may be underestimates because of suppression.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 8—Earnings per nonfarm job by county types

Item	Earnings per job			Change		Annualized average change	
	1980	1990	1994	1980-90	1990-94	1980-90	1990-94
	1994 dollars					Percent	
Nonmetro	22,639	21,294	21,826	-1,345	532	-0.6	0.6
Adjacency:							
Adjacent to metro	22,588	21,615	22,152	-974	538	-.4	.6
Nonadjacent	22,696	20,928	21,457	-1,768	529	-.8	.6
Region:							
North	23,087	22,697	23,195	-390	498	-.2	.5
Central	21,889	19,786	20,334	-2,103	547	-1.0	.7
South	21,873	20,801	21,382	-1,072	580	-.5	.7
West	25,101	22,285	22,759	-2,816	474	-1.2	.5
Economic types:							
Mining	30,230	24,501	24,244	-5,729	-257	-2.1	-.3
Manufacturing	23,014	22,350	23,036	- 664	686	-.3	.8
Government	22,274	21,371	21,923	-903	552	-.4	.6
Services	22,196	21,024	21,574	-1,172	549	-.5	.6
Policy types:							
Retirement	21,003	20,459	21,064	-545	605	-.3	.7
Federal lands	24,325	21,938	22,421	-2,387	483	-1.0	.5
Commuting	20,997	20,141	20,554	-855	413	-.4	.5
Persistent poverty	21,166	19,882	20,418	-1,284	536	-.6	.7
Transfers	22,321	19,711	20,096	-2,610	385	-1.2	.5
Growth counties:							
Declining	23,077	20,719	21,058	-2,358	340	-1.1	.4
Modest growth	22,798	21,585	22,065	-1,213	480	-.5	.6
Rapid growth	22,196	21,119	21,783	-1,077	664	-.5	.8
Minority counties:							
Black	20,735	20,617	21,306	-118	689	-.1	.8
Hispanic	23,118	20,499	20,857	-2,618	357	-1.2	.4
Native American	26,149	22,513	22,876	-3,636	363	-1.5	.4

Note: Data for mining counties may be underestimated because of suppression for certain counties.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 9—Per capita income by residence, region, and county types

Item	Nonmetro			Metro		
	1980	1990	1994	1980	1990	1994
			1994 dollars			
United States	13,954	16,117	16,964	18,925	22,379	22,882
Regions:						
North	14,867	17,327	18,028	19,292	23,895	24,652
Central	14,435	16,739	17,598	19,578	22,480	23,368
South	12,528	14,848	15,905	17,098	20,118	20,917
West	15,986	16,846	17,334	20,195	22,630	22,320
Economic types:						
Farming	13,412	16,399	16,977	NA	NA	NA
Mining	14,957	15,085	15,833	NA	NA	NA
Manufacturing	13,732	16,044	16,979	NA	NA	NA
Government	13,140	15,110	15,941	NA	NA	NA
Services	14,992	17,407	18,281	NA	NA	NA
Policy types:						
Retirement	14,895	17,361	17,860	NA	NA	NA
Federal lands	15,165	16,779	17,470	NA	NA	NA
Commuting	13,130	15,427	16,149	NA	NA	NA
Poverty	11,213	13,156	14,276	NA	NA	NA
Transfers	11,772	13,198	14,176	NA	NA	NA
Population growth:						
High growth	13,932	16,041	16,769	NA	NA	NA
Slow growth	14,000	16,174	17,067	NA	NA	NA
Decline	13,854	16,115	17,151	NA	NA	NA

NA = Not applicable.

Notes: Per capita incomes are calculated based on aggregating income and population of counties in the region or category. See p. 53 for definition of region and pp. 54-55 for definition of county types.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 10—Change in real per capita income by residence, region, and county types

	Nonmetro		Metro	
Item	1980-90	1990-94	1980-90	1990-94
	Average annual percent change			
United States	1.45	1.29	1.69	0.56
Regions:				
North	1.54	1.00	2.16	.78
Central	1.49	1.26	1.39	.97
South	1.71	1.73	1.64	.98
West	.52	.72	1.14	-.34
Economic types:				
Farming	2.03	.87	NA	NA
Mining	.08	1.22	NA	NA
Manufacturing	1.57	1.43	NA	NA
Government	1.41	1.35	NA	NA
Services	1.50	1.23	NA	NA
Policy types:				
Retirement	1.54	.71	NA	NA
Federal lands	1.01	1.01	NA	NA
Commuting	1.62	1.15	NA	NA
Poverty	1.61	2.06	NA	NA
Transfers	1.15	1.80	NA	NA
Population growth categories:				
Rapid growth	1.42	1.10	NA	NA
Moderate growth	1.45	1.35	NA	NA
Declining	1.52	1.57	NA	NA

NA = Not applicable.

Note: Per capita incomes are calculated based on aggregating income and population of counties in the region or category. See p. 53 for definition of region and pp. 54-55 for definition of county types.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 11—Mean, standard deviation, and range of nonmetro per capita income by county types

Item	Mean	Standard deviation	Minimum	Maximum
		1994 dollars		
Economic types:				
Farming	17,716	3,549	8,934	38,489
Mining	16,338	3,294	9,707	33,000
Manufacturing	16,344	2,222	11,101	25,476
Government	15,497	3,322	6,583	31,950
Services	17,941	3,755	11,085	41,889
Nonspecialized	16,186	2,368	10,284	25,912
Policy types:				
Retirement	16,961	3,384	9,707	30,214
Federal lands	17,278	4,297	10,444	41,889
Commuting	15,648	2,697	10,079	32,759
Poverty	14,285	2,375	6,583	26,270
Transfers	13,948	2,158	6,583	26,270
Population growth types:				
Declining	17,838	3,293	9,767	38,489
Moderate growth	16,629	2,779	8,697	32,759
Rapid growth	16,291	3,439	6,583	41,889

Notes: The mean values are the unweighted county means of per capita income. See pp. 54-55 for definition of county types.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 12—Per capita income and transfer payments, 1994, average annual changes, 1990-94

	1994		Average annual change				
	Income	Share of transfers	1990-94	1990-91	1991-92	1992-93	1993-94
	Dollars	Percent					
Nonmetro:							
Per capita income	16,982	NA	1.29	-.74	2.25	.90	2.75
Transfer payments	3,560	100.00	4.34	6.75	6.42	2.80	1.38
Retirement/disability programs	1,839	51.66	2.30	2.76	2.27	2.33	1.86
Social Security	1,374	38.58	2.13	2.70	2.57	1.89	1.37
Medical	1,172	32.92	9.00	13.83	9.79	7.20	5.19
Income maintenance programs	333	9.36	5.68	8.43	13.80	.93	-.46
Supplemental Security Income	105	2.96	7.68	7.17	17.82	4.60	1.11
Aid to Families with Dependent Children	62	1.74	.28	7.73	.44	-2..34	-4.69
Food stamps	93	2.60	3.70	13.78	6.98	-2.55	-3.44
Other income maintenance	73	2.05	12.43	2.40	38.17	3.89	5.28
Unemployment insurance	84	2.37	4.00	30.18	31.38	-14.42	-31.16
Veterans' benefits	93	2.61	-1.66	-3.48	-.93	.23	-2.46
Other transfer programs	38	1.06	-3.51	-6.16	2.11	-7.09	-2.88
Metro:							
Per capita income	22,898	NA	.56	-1.40	1.43	.64	1.58
Transfer payments	3,503	100.00	4.39	6.60	7.08	2.73	1.14
Retirement/disability programs	1,766	50.42	2.33	2.80	2.24	2.41	1.88
Social Security	1,154	32.95	1.98	2.74	1.98	1.96	1.24
Medical	1,187	33.88	8.43	11.91	10.28	6.75	4.77
Income maintenance programs	350	9.99	5.81	7.61	11.80	2.90	.94
Supplemental Security Income	98	2.81	7.20	5.68	14.02	7.09	2.02
Aid to Families with Dependent Children	101	2.88	1.08	5.10	1.42	-.45	-1.76
Food stamps	86	2.46	8.35	18.77	12.31	2.29	.02
Other income maintenance	64	1.83	9.82	.53	30.43	3.25	5.08
Unemployment insurance	93	2.65	6.66	34.34	42.67	-16.12	-34.23
Veterans' benefits	71	2.03	-1.43	-2.41	-2.07	.40	-1.63
Other transfer programs	36	1.03	-2.55	-5.67	5.91	-7.92	-2.53

NA= Not applicable.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 13—Nonmetro per capita income and transfer payments by region and selected county types 1994

Item	Per capita income	Per capita transfers	Transfers as a share of income	Share of transfers from— Retirement/ disability programs	Medical programs	Income maintenance programs	Other programs	Share of counties with high transfer payments, 1992-94
	Dollars		Percent					
All nonmetro	16,982	3,560	21.0	51.7	32.9	9.4	6.0	25.0
By region:								
North	18,029	3,519	19.8	52.8	33.9	7.6	5.7	17.0
Central	17,600	3,551	20.2	53.2	34.0	7.2	5.6	17.3
South	15,915	3,617	22.7	49.5	33.8	11.3	5.4	36.9
West	17,335	3,421	19.7	53.9	27.2	10.0	8.9	15.6
By population growth:								
Declining population	17,196	3,990	23.2	49.9	34.5	9.5	5.0	26.9
Modest population growth	17,089	3,604	21.1	50.9	33.9	9.4	5.8	24.2
High population growth	16,774	3,359	20.0	53.4	30.4	9.4	6.8	24.6
By minority concentration:								
Black	15,516	3,692	23.8	44.9	36.2	13.6	5.3	43.7
Hispanic	14,605	3,402	23.3	44.9	34.4	14.5	6.2	30.7
Native American	13,743	3,261	23.7	40.6	30.4	16.8	12.2	40.4
By other types:								
Retirement-destination	17,859	3,794	21.3	58.0	27.8	8.1	6.2	33.7
Persistent-poverty	14,266	3,779	26.5	43.2	35.9	14.9	6.0	60.9
High transfers, 1992-94	14,439	4,336	30.0	46.7	35.6	12.1	5.6	100.0

Note: See pp. 53-55 for definition of region and ERS county types.
Source: Calculated by ERS using data from the Bureau of Economic Analysis and revised ERS typology codes.

Appendix table 14—Poverty rates by residence, region, and selected characteristics

Item	Poverty rate		Share of poor	
	Nonmetro	Metro	Nonmetro	Metro
		Percent		
Total	16.4	14.0	100.0	100.0
By region:				
North	13.2	12.8	21.0	32.8
Central	13.5	12.9	14.5	10.3
South	19.6	15.1	49.4	31.2
West	16.5	15.1	15.2	25.6
By race/ethnicity:				
White non-Hispanic	13.0	8.2	67.1	40.9
Black non-Hispanic	36.4	29.5	18.7	29.0
Hispanic	39.8	29.6	11.7	25.8
Native American	31.2	22.2	2.2	.7
By family type:				
Husband-wife headed families	8.7	7.0	37.4	32.8
Female-headed families	45.0	36.8	35.3	41.6
Women living alone	33.0	22.7	14.6	12.7
Men living alone	21.4	17.0	7.6	8.9
By age:				
Age 0-17	23.0	21.5	37.9	40.9
Age 18-64	13.9	11.4	50.0	50.3
Age 65+	14.2	10.8	12.1	8.8
By family employment:				
One or more full-time-full-year worker	6.3	4.1	24.8	20.0
Part-time or part-year worker(s) only	36.9	33.7	37.7	36.1
No family-member employed	58.8	66.9	27.3	36.5
No working-age person in family	15.2	12.3	10.3	7.5
By educational attainment: (Persons age 25 and above only)				
Less than high school graduation	25.8	26.2	46.2	42.7
High school diploma or GED	11.5	10.4	34.1	32.4
Some college or Associate degree	8.8	7.0	15.6	17.0
Bachelor's degree or more	3.7	3.2	4.2	7.9

Notes: See p. 53 for definition of region. Shares of poor by race-ethnicity and family type do not add to 100 percent because not all categories are included. Work status refers to employment during the entire year. For persons living alone, family employment refers to the person's own work status.

Source: Calculated by ERS using data from the Bureau of the Census March 1995 Current Population Survey

Appendix table 15—Farm operator household income, by selected characteristics, 1994

Item	Households		Mean household income		Share from off-farm sources[1]		Percent of U.S. average household income[2]
	Number	RSE[3]	Dollars	RSE[3]	Percent	RSE[3]	Percent
All farm households	1,996,793	2.5	42,469	3.3	90	1.4	98
Operator's age:							
Less than 35 years	185,673	9.0	31,429	8.9	81	5.6	73
35-44 years	395,130	5.9	43,970	5.1	83	3.8	102
45-54 years	487,392	5.4	55,512	5.8	90	2.5	129
55-64 years	434,126	5.6	44,622	8.6	94	3.3	103
65 years or older	494,473	5.2	30,668	6.9	95	2.2	71
Operator's education:							
Less than high school	386,957	6.0	24,144	5.5	92	3.0	56
High school	828,292	4.0	39,673	4.8	87	2.5	92
Some college	426,491	5.6	47,299	7.5	89	3.3	110
College	355,053	6.6	63,159	7.0	94	2.5	146
Operator's occupation:							
Farming	898,270	2.8	36,539	3.8	64	3.8	85
Other occupation	817,417	4.9	54,196	5.4	106	1.1	126
Retired	281,106	7.9	27,314	8.9	105	2.5	63
Type of farm:							
Cash grains	394,003	4.3	41,700	3.9	75	3.4	97
Other crops	472,075	5.4	53,523	6.7	79	3.4	124
Beef, hogs, or sheep	860,465	4.4	37,144	5.6	107	1.8	86
Dairy	137,897	6.0	33,968	7.4	50	8.8	79
Other livestock	132,354	11.9	48,807	15.6	110	5.3	113
Sales class of farm:							
Less than $50,000	1,457,392	3.4	38,168	4.5	109	1.0	88
$50,000 and more	539,401	2.7	54,090	4.1	52	4.1	125
$50,000-$99,999	208,746	6.4	39,531	7.5	80	4.0	92
$100,000-$249,999	217,335	3.4	41,935	7.2	62	5.7	97
$250,000-$499,999	70,141	5.7	72,518	7.3	31	9.8	168
$500,000 and more	43,179	5.3	155,711	9.3	23	13.8	361
Farm organization:							
Individual	1,826,382	2.7	40,930	3.6	93	1.4	95
Partnership	110,494	7.7	53,371	9.6	68	6.1	124
Family corporation	59,918	10.5	69,255	13.0	62	12.2	161
Major farming region:							
Northeast	137,872	7.6	39,209	17.2	94	4.5	91
Lake States	212,467	6.9	35,060	7.5	85	4.5	81
Corn Belt	411,055	5.7	42,098	5.2	86	3.0	98
Northern Plains	182,261	7.5	41,173	12.1	79	5.5	95
Appalachian	291,826	7.5	39,631	8.5	96	2.3	92
Southeast	147,418	10.0	47,685	9.0	94	3.2	111
Delta	110,268	9.3	39,804	18.8	90	4.8	92
Southern Plains	251,604	7.7	38,943	10.2	100	4.5	90
Mountain	108,637	7.7	52,133	15.2	89	5.4	121
Pacific	143,385	11.2	60,617	13.0	85	7.9	141

[1] Income from off-farm sources can be more than 100 percent of total household income if farm income is negative. [2] Mean household income divided by U.S. mean household income ($43,133). [3] The relative standard error (RSE) provides the means of evaluating the survey results. A smaller RSE indicates greater reliability of the estimate.

Source: Calculated by ERS using data from the 1994 Farm Costs and Returns Survey (FCRS).

Appendix table 16—Demographic and earnings characteristics of hired farmworkers, 1990-95

Characteristics	Hired farmworkers					
	1990	1991	1992	1993	1994	1995
	Thousands					
Number of workers	886	884	848	803	779	832
Percent						
Total	100.0	100.0	100.0	100.0	100.0	100.0
Gender:						
Male	82.9	82.4	83.8	84.7	83.8	84.6
Female	17.1	17.6	16.2	15.3	16.2	15.4
Racial/ethnic group:						
White	61.0	60.3	59.7	57.5	50.5	52.8
Hispanic	29.4	28.3	30.7	33.6	41.9	41.8
Black and other	9.6	11.4	9.6	8.9	7.6	5.4
Age (years):						
16-24	31.5	25.0	24.7	27.2	26.8	28.7
25-44	47.6	51.6	52.6	51.1	49.7	45.1
45-59	14.4	15.1	16.3	16.2	17.5	18.5
60 and older	6.5	8.3	6.4	5.5	6.0	6.7
Marital status:						
Married	53.3	53.4	53.5	51.8	59.5	59.7
Widowed, divorced, or separated	8.9	11.2	10.1	9.5	8.9	7.6
Never married	37.8	35.4	36.4	38.6	31.6	32.7
Schooling completed:[1]						
0-4 years	11.1	11.5	14.1	16.4	13.5	14.5
5-8 years	21.6	21.2	16.0	17.4	22.5	22.1
9-11 years	22.8	22.6	27.0	21.8	22.2	22.0
12 years	31.4	31.0	26.9	27.0	26.0	26.4
13 years or more	13.1	13.7	16.0	17.4	15.8	15.0
	Dollars					
Median weekly earnings:[2]						
Part-time workers[3]	93	105	98	105	118	100
Full-time workers[4]	280	269	261	264	257	260
All workers	233	235	217	232	245	240

[1] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[2] Median earnings are in 1995 dollars.

[3] Part-time workers usually work less than 35 hours per week.

[4] Full-time workers usually work 35 or more hours per week.

Note: Data for 1994 and 1995 are not directly comparable with data for 1993 and earlier years.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Appendix table 17—Demographic and earnings characteristics of all wage and salary workers, 1990-95

	All wage and salary workers					
Characteristics	1990	1991	1992	1993	1994	1995
	Thousands					
Number of workers	104,351	103,166	104,054	105,407	107,824	109,844
	Percent					
Total	100.0	100.0	100.0	100.0	100.0	100.0
Gender:						
Male	52.7	52.5	52.2	52.1	52.4	52.4
Female	47.3	47.5	47.8	47.9	47.6	47.6
Racial/ethnic group:						
White	78.3	78.1	77.9	77.7	76.3	76.2
Hispanic	7.9	8.0	8.0	8.2	9.3	9.5
Black and other	13.8	13.9	14.1	14.1	14.4	14.3
Age (years):						
16-24	15.8	17.2	16.7	16.6	16.9	16.6
25-44	56.5	55.4	55.2	54.7	54.4	54.1
45-59	21.8	21.7	22.5	23.2	23.4	24.0
60 and older	5.9	5.7	5.6	5.5	5.3	5.3
Marital status:						
Married	58.2	58.5	58.3	58.2	58.1	58.2
Widowed, divorced, or separated	14.3	14.3	15.4	14.6	14.5	14.4
Never married	27.5	27.2	27.2	27.1	27.4	27.4
Schooling completed:[1]						
0-4 years	1.0	.9	.9	.8	.8	.8
5-8 years	4.0	3.7	3.0	2.8	2.8	2.7
9-11 years	10.8	10.2	10.1	9.8	9.5	9.5
12 years	39.4	39.2	35.0	34.4	33.3	32.7
13 years+	44.8	46.0	51.0	52.2	53.6	54.3
	Dollars					
Median weekly earnings:[2]						
Part-time workers[3]	136	135	139	137	136	138
Full-time workers[4]	471	478	478	480	475	480
All workers	420	414	413	422	411	400

[1] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[2] Median earnings are in 1995 dollars.

[3] Part-time workers usually work less than 35 hours per week.

[4] Full-time workers usually work 35 or more hours per week.

Note: Data for 1994 and 1995 are not directly comparable with data for 1993 and earlier years.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

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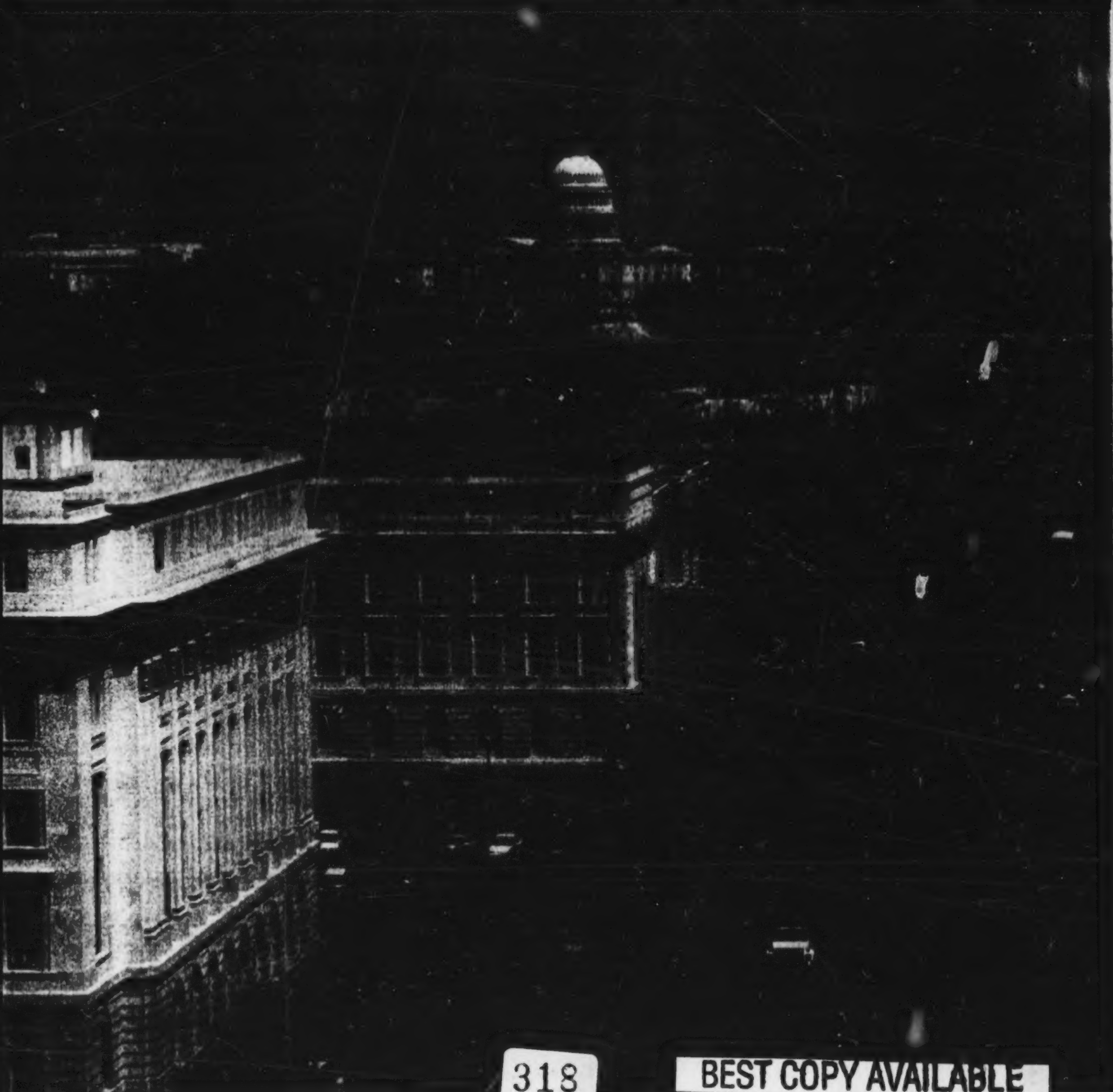

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Rural Conditions and Trends

1997, Volume 8, No. 1

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Welfare Reform, Regulatory Change, New Infrastructure Funding, and Government Reinvention Set the Stage for 1997

The main change for 1997 is welfare reform, which is expected to have a more significant impact in rural than in urban areas. The increase in the minimum wage and earned income tax credit should boost incomes of the working poor. Funding has increased for infrastructure, including a new assistance program for drinking water systems. Many other core development programs have been reinvented and expect to provide more assistance, even though their funding has not grown. In addition, many regulatory changes will affect rural economies and the environment.

This is the second annual issue of *Rural Conditions and Trends (RCaT)* dedicated to describing Federal program and policy changes important for rural development. This issue examines budget, tax, and regulatory changes initiated in 1996 and taking effect in 1997 (the first issue looked at changes taking effect in 1996). We examine most of the larger core development programs that assist rural infrastructure, housing, businesses, and general development (including planning and technical assistance). We also examine major changes in tax and regulatory policy affecting rural areas. These are areas we intend to cover every year.

Our first Federal Programs issue (Vol. 7, No. 2, 1996) also looked at a broad range of programs not directly aimed at rural development but with important implications for development. These included agriculture, defense, health, education, training, environment and natural resources, and income support programs. This 1997 issue focuses more narrowly on core development programs. However, we also give special attention to major new legislation and regulations that are expected to have significant rural development implications. This year, we include special articles on welfare reform, the minimum wage increase, and the new safe drinking water provisions, all of which are expected to significantly affect rural development. We also include a different group of programs in our analysis of miscellaneous programs, which this year covers education, employment, training, environmental, and natural resources programs.

Like other issues of *RCaT*, our analysis is primarily descriptive. In many of our maps and figures, we use the Census Bureau's Consolidated Federal Funds Reports data (also known as Federal Funds data) to reveal where individual Federal program allocations went in fiscal year 1995 (the latest available data), on the assumption that these same places will be affected by current policy changes affecting these same programs. We use various State and county typologies so we can describe how policy changes might affect specific types of places, such as farm States or poverty counties. Data sources and typologies are discussed in appendix B.

Because of the large number of Federal programs that contribute to rural development, we are forced to focus primarily on the larger and more important programs in our analysis, particularly those that have been changed recently. Although we are limited in the number of maps and other figures we can provide for any one issue, over time we hope to present information on a wide variety of programs important to rural development.

New Format for This Issue

We have made several changes in format to improve the report. One change involves the way our tabular program funding information is presented. We have replaced the single large appendix table listing selected programs in each program area with more detailed tables presented along with the text in each program area article. This should be particularly helpful for those who obtain individual articles from the report (and not the appendix) electronically.

These new program area tables not only show changes in funding, but also indicate which types of rural places are most likely to be affected by the program. Where possible, we have used the 1995 Federal Funds data to indicate the places affected by each program. The reader should refer to appendix B for definitions of the State and county types and regions we used in these tables. This appendix also tells how to obtain our Federal Funds data, which provide funding information by individual county or State, and by the types of counties and States used in our report.

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Our new appendix table 1 uses Federal Funds data for 1995 to estimate the rural percentage share of funding for selected programs in this report. Where accurate county level data exist, we present the percentage of funding in nonmetro counties. For other programs, we use State-level data to estimate the percentage of funding in rural States.

The reader may also refer to maps, charts, and tables from our previous Federal Programs issue for more insights into places affected by various Federal programs. Our new appendix C provides a list of the articles from the first Federal Programs issue, including a list of the maps, charts, and tables in each article. Referring to our first issue should be particularly useful for those interested in recent developments involving agriculture, defense, health, income support, natural resources and environment, trade, and Native American programs, which were covered in some detail in that issue but which receive little attention in this, our second, issue examining Federal programs. The first issue also provides more detail about core development programs, including their purposes and various types of assistance.

Welfare Reform Is the Biggest Change for Rural Development in 1997

Welfare reform requires that, within a set period of time, able-bodied people must move into the labor force or give up their welfare benefits. Welfare reform also includes reductions in Food Stamps, Medicaid, and some other important assistance programs, as well as increases in some other programs. It also involves the devolution of responsibility for Federal welfare assistance, from Federal to State government.

Much of the public debate surrounding welfare reform focused on conditions in the cities, including the common belief that many urban and suburban jobs are available for welfare recipients. However, as our article on welfare reform points out, many rural areas will be significantly affected by this legislation, particularly high-poverty areas in the South. Rural areas generally have higher unemployment rates than urban areas, meaning fewer job opportunities exist. Thus, adjusting to the new law could be a challenge for rural America.

Welfare reform did not occur in a vacuum; it was accompanied by changes in Federal program funding, regulations, and taxes to help affected individuals, firms, and communities adjust to the changes. Along with welfare reform came increased funding of education, training, child care, and employment programs that should help welfare recipients make the transition to gainful employment. Welfare reform also came along with an increase in the minimum wage, which should add to the earnings capability of many low-wage workers. The same legislation that raised the minimum wage provided new tax breaks for small businesses, which may help them adjust to possible higher wage costs associated with the minimum wage.

The minimum wage increase is another big story for 1997, particularly for rural workers. The prevalence of low-wage jobs in rural areas means that a larger share of rural than urban workers will benefit. The greatest benefits will be in the rural South, where low-wage industries and high poverty rates are most common. The minimum wage increase should complement welfare reform, by bolstering wage rates for unskilled workers. The recent increase in the earned income tax credit provides an even bigger boost to the incomes of low-wage rural workers. Together, the increased minimum wage and earned income tax credit may help many families rise above the poverty rate.

Another important tax change related to welfare reform is the work opportunity tax credit that goes to employers who hire from seven targeted groups and places, including people transitioning from welfare and young people in Empowerment Zones and Enterprise Communities. This is expected to help with the adjustment from welfare to work, giving employers tax savings that could be used for training or invested in job creation.

USDA Rural Development Reinvention Gets Boost From Farm Legislation

The Department of Agriculture (USDA), the lead Federal rural development agency, has been busy reinventing its development programs. For example, USDA is making major contributions to various innovative national initiatives, including the Northwest Economic Adjustment Initiative, Empowerment Zones and Enterprise Communities, Water 2000, and the Home Ownership Initiative. These initiatives tend to involve interagency coordination of funding targeted to specific needs or priorities. As such, they represent a reinvention designed to make the most of declining or stagnant development funding.

USDA's new development efforts have been accompanied by reorganization and downsizing. The three rural development services (Rural Business-Cooperative Service, Rural Housing Service, and Rural Utilities Service) have taken part in the agencywide effort to consolidate field offices. The resulting one-stop service centers are consolidating rural development offices with Farm Service Agency and Natural Resources and Conservation Service offices. Increased coordination with USDA's Cooperative Extension services is also planned. In the meantime, rural development staffing is being reduced as part of the downsizing effort. All three rural development agencies have reduced staff since 1993, and all are expected to see more of the same through 2002. In 1997, only the Rural Housing Service will see staff reductions.

The farm legislation, enacted on April 4, 1996, included several new provisions guiding USDA's reinvention of its rural development programs. This legislation created the Rural Community Advancement Program (RCAP) that gave USDA more flexibility to transfer funds among its major rural development programs (housing, infrastructure, and business assistance), enabling it to more efficiently use its funds. Although appropriations legislation for 1997 did not permit USDA to use all of its authorized flexibility (such as transferring money among its three main programs and awarding States with bonuses to encourage performance improvements), USDA is proceeding with improvements in program planning and implementation.

The farm legislation also authorized a new $300 million Fund for Rural America, which may commit $100 million per year beginning in 1997. The law requires that one-third be spent on USDA's existing rural development programs, one-third on rural development research, and one-third on either rural development programs or research. In its first year of operation (1997), USDA has decided to spend almost half of these funds, $47 million, on rural development activities (fig. 1). The largest part of this, $20 million, will support rural housing loans, partially offsetting projected declines in loan levels caused by greater-than-expected interest rates and other factors. About $46 million from the Fund for Rural America will go to research. The purpose of the research is to gain a better understanding of rural development needs and strategies, so that rural development programs can be made more effective. The remaining $7 million in 1997 funds goes to beginning farm loans and outreach for socially disadvantaged farmers.

Other Major Themes in 1997 Involve Regulatory Change, Increased Infrastructure Aid, and Reinvention of Core Development Programs

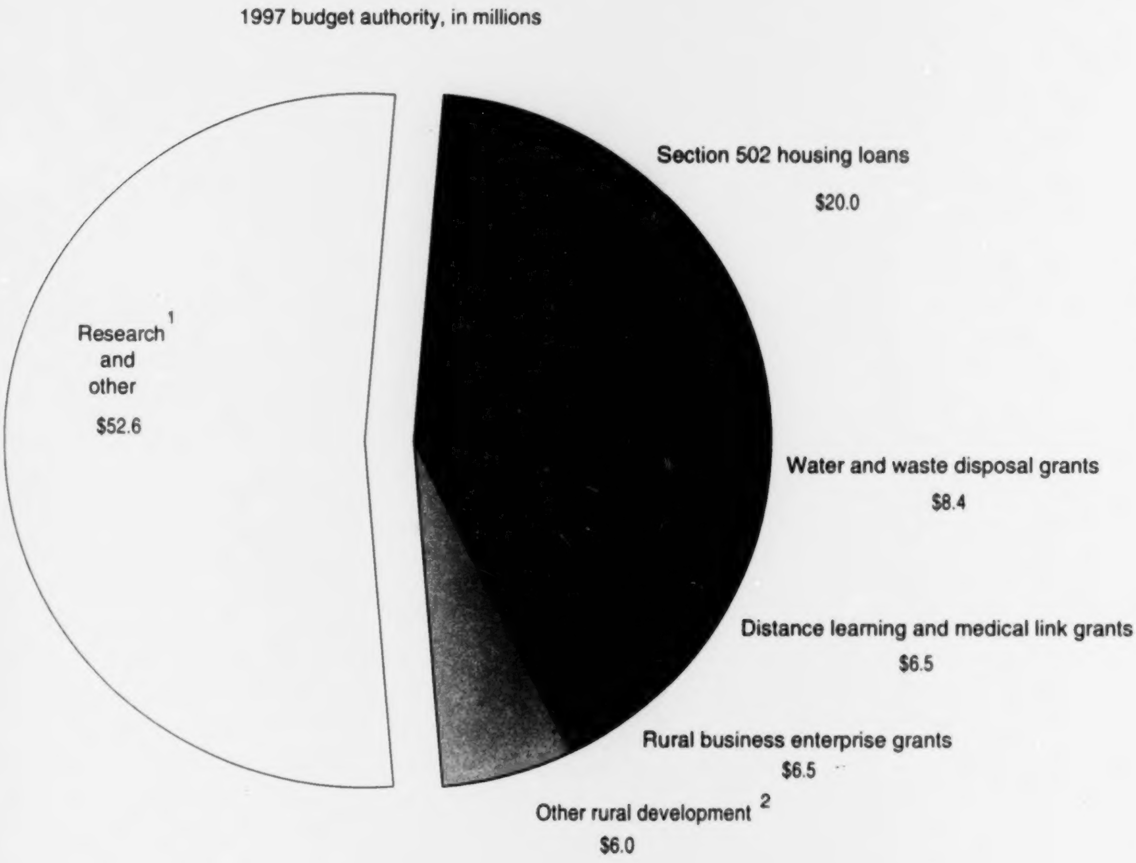
Regulatory legislation was the focus of much attention in the media in 1996 and will begin affecting rural development in 1997. New environmental regulations provide the Environmental Protection Agency (EPA) with more flexibility in formulating and enforcing its regulations covering drinking water and pesticides. They include a new financial assistance program to help communities (particularly disadvantaged rural communities) finance infrastructure improvements needed to comply with the new regulations. Small systems will be eligible for other forms of assistance, such as reimbursements for operator training and flexibility to use alternative means of complying with regulations.

Other important regulatory changes involve banking, housing, health insurance, wetlands, fisheries, parks, public lands, Social Security, immigration, and Native Americans. Several proposed regulations could also have significant nationwide effects on rural development. These include proposed regulations that would encourage telecommunica-

Figure 1

The Fund for Rural America, fiscal year 1997

Rural development activities account for 47 percent of the $100-million total budget authority of the Fund in 1997



[1] Includes research, extension and education grants, telecommunications infrastructure research, outreach for socially disadvantaged farmers, and beginning farmer loan programs.

[2] Includes water and waste disposal loans, farm labor housing grants and loans, alternative agricultural research and commercialization, cooperative development services, and Empowerment Zone/Enterprise Community technical assistance.

Source: Calculated by ERS using USDA 1998 Budget Summary.

tions companies to provide universal coverage of advanced communications capabilities to all rural places and EPA's proposed air quality standards, which are more stringent than earlier standards and could affect development in many rural areas.

Many core development programs received roughly the same amount of funding in 1997 as in 1996, but funding varied significantly by type of program. For example, many infrastructure programs received funding increases, particularly for environmental infrastructure. In addition to the new EPA fund for drinking water systems, with special provisions for small drinking water systems, EPA is also providing new hardship grants for wastewater systems to help small communities with low incomes and high unemployment. Rural communities will especially benefit from increased funding from USDA's infrastructure programs, including a 25-percent increase in water and waste disposal loans and grants, a 35-percent increase in telecommunications loans, and a large increase in distance learning loans and grants.

Housing, business, and general assistance program funding has remained fairly constant or decreased, but many of these programs are being reinvented to provide more assistance without receiving more funds. One common approach has involved shifting from subsidized direct loans to less expensive guaranteed loans, which involve other parties (banks, nonprofits, government-sponsored enterprises) in the lending process. This not only saves on the subsidies but achieves efficiencies by allowing others to take on responsibilities, enabling Federal agencies to downsize and reorganize for improved performance.

Many agencies are undergoing these efficiency-minded changes, but the most notable such changes involve business assistance programs, including USDA's Business and Industry Program. It is still too early to tell how successful these efforts will be in making taxpayer dollars stretch, but the fate of these and other government programs may depend on successful reinvention.

This Report Covers a Wide Variety of Programs, Taxes, and Regulatory Changes

The first four articles cover the core rural development program areas: general assistance, infrastructure, business assistance, and housing. The fifth article discusses miscellaneous programs with increasing budgets in 1997, including education, employment, training, environment, and natural resources. The next three articles cover welfare reform, the minimum wage increase, and the Safe Drinking Water legislation (including the new program to help finance drinking water projects). The last two articles deal with tax and regulatory changes. These are followed by the three appendixes. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

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General Assistance Funding Remains Steady, While New Initiatives Direct Aid to Distressed Rural Areas

Steady funding characterizes most general assistance programs in 1997, though some programs will benefit temporarily from carryover of large unobligated prior-year funds. The Northwest Economic Adjustment Initiative has plateaued, while other major initiatives are just beginning to have significant impacts.

General assistance supplements or complements single-function programs like housing, infrastructure, and business assistance. It often targets distressed areas or regions and emphasizes planning and technical assistance. General assistance also helps rural communities design and implement comprehensive development strategies, while augmenting their capacity to achieve sustainable development in the future.

The largest rural general assistance programs include the Department of Agriculture's (USDA) extension activities, the Department of Commerce's economic adjustment program, the Department of Housing and Urban Development's (HUD) community development block grant program, Federal Emergency Management Agency's (FEMA) disaster assistance, and the Bureau of Indian Affairs (BIA) assistance programs. Smaller programs tend to focus on a particular region or type of place with special needs. Although some of these programs saw their budgets cut during the last 2 years, they appear to have survived with relatively stable funding in 1997 (references to years in this article refer to fiscal years), and some have been reinvented to operate more effectively.

The most important development in recent years has been the growing importance of new initiatives that provide the Administration with flexibility to direct various types of assistance to distressed areas. These include rural Empowerment Zones and Enterprise Communities (EZ/EC), Rural Economic Area Partnership (REAP) zones, the Northwest Economic Adjustment Initiative, and Community Development Financial Institutions (CDFI).

Main General Assistance Programs See Steady Funding in 1997

HUD's community development block grants (CDBG) provide the largest single source of general assistance funds, totaling $4.6 billion, of which about 30 percent ($1.3 billion) goes to States to fund housing, infrastructure, and business development in small cities and rural areas (including some portions of metro areas). CDBG's newly appropriated funds remain constant for this program in 1997 (table 1). However, the money available in 1997 will actually increase because of large unobligated balances carried over from the previous year (including unobligated CDBG disaster assistance). Thus, total CDBG obligations are projected to increase in 1997, from $4.4 to $5.3 billion. HUD's section 108 loan guarantee program, funded through the CDBG program, finances large-scale job generation through various projects, including housing, infrastructure, and business development. This program is projected to obligate $1.4 billion in loan guarantees in 1997, significantly more than in 1996. The section 108 program operates nationally on a first come/first serve basis. Although there is no rural set aside in the program, a portion of each year's loan guarantees are made in rural areas.

Commerce Department's Economic Development Administration (EDA) provides three forms of general assistance important to distressed rural areas: planning, technical, and adjustment assistance. Funding for these programs remains stable in 1997, with $24 million for planning grants, $9 million for technical assistance, and $120 million for adjustment grants (including $90 million for defense adjustment). Supplemental funding for communities adjusting to natural disasters is expected to increase from $16 to $39 million, with most of the increase associated with Hurricanes Fran and Hortense. EDA is also implementing significant reforms, including strategic planning, program evaluation, and streamlined regulations, which should improve program effectiveness.

FEMA's disaster relief grants provide general assistance to places recovering from natural disasters. Figure 1 shows how this program's obligations were allocated among the States in 1995. As in most years, FEMA disaster assistance was most important for

Table 1

Main general assistance programs

Except for FEMA, funding is steady for most general assistance programs

	Funding level by fiscal year[1]			
Program	1996 actual	1997 estimate	Change	Rural areas most affected by the program
	Billion dollars		Percent	
HUD State/small cities community development block grants	1.31	1.29	-1	Northeast and Midwest States
HUD Section 108 Loan Guarantees[2]	.43	1.38	320	Same as above
EDA adjustment assistance, includes economic and defense adjustment, planning and technical assistance	.15	.15	0	Farming and totally rural areas, and in Midwest
FEMA disaster relief	3.61	4.50	25	Earthquake- and flood-prone areas
USDA's extension activities	.43	.43	0	Urbanized, nonadjacent, government, and poverty counties[3]
BIA Native American assistance programs	1.65	1.61	-2	Indian reservations

[1] For FEMA and HUD Section 108, total new obligations are used for the funding level. Budget authority is used for the other programs.

[2] The funding given for this program includes both urban and rural areas.

[3] These are the counties where extension offices are located; extension services provided by these offices actually benefit a wider array of counties.

Source: Budget of the United States, fiscal year 1998.

coastal and river States prone to flooding and hurricanes and in the western earthquake areas. More recently, Hurricanes Hortense and Fran have resulted in high FEMA funding levels. In 1996, FEMA's disaster relief required $3.4 billion. Although additional funding for 1997 is expected to decline to $1.3 billion, outlays and obligations will rise (reflecting lags in funding and spending).

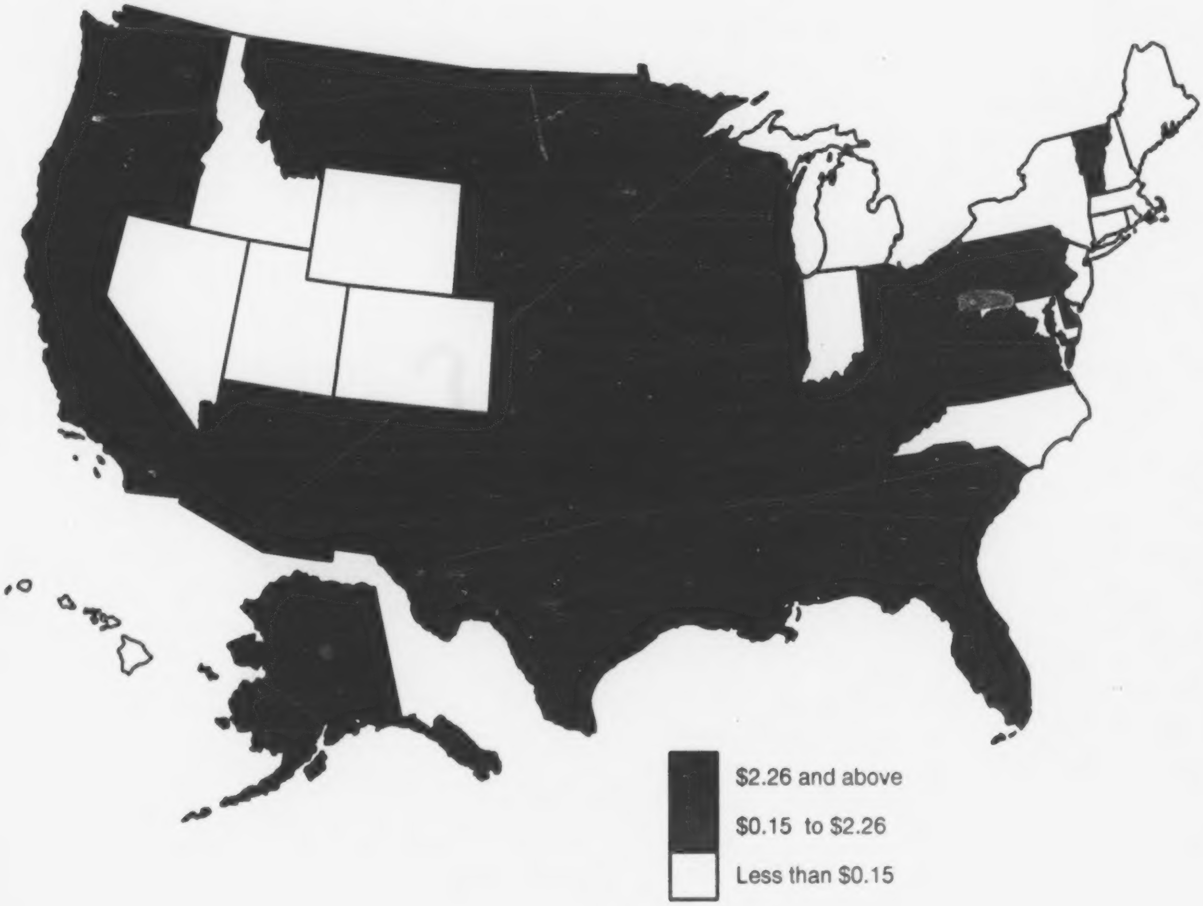
USDA's extension activities, funded by the Cooperative State Research, Education, and Extension Service, and performed at land-grant universities and county extension offices, provide valuable, research-based technical assistance to many rural communities nationwide that otherwise lack the trained staff to formulate complex development strategies. Extension activities include agricultural as well as nonagricultural development. Federal funding for extension activities remains roughly constant at $426 million in 1997 (an equivalent amount is provided for research related to these activities).

The Interior Department's Bureau of Indian Affairs (BIA) provides most of the general assistance to Native American tribes. Funding for BIA declines slightly in 1997, from $1.65 to $1.61 billion. Native Americans also will receive $87 million in HUD community development block grants in 1997.

Figure 1

Per capita FEMA disaster assistance, by State, fiscal year 1995

Aid concentrates in coastal States affected by storms and earthquakes, and in States affected by flooding



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Funding Remains Flat for Most Small General Assistance Programs

Funding for smaller general assistance programs, which tend to focus on specific regions or places experiencing long-term economic challenges, has also been fairly steady. For example, Interior Department payments in lieu of taxes help finance local government services in areas that must forego local taxes on Federal lands within their jurisdiction. Funding for this program, which primarily benefits the western jurisdictions with substantial Federal land holdings, remains unchanged at $114 million.

The Appalachian Regional Commission's (ARC) area development program will get the same amount in new funding as last year, $57 million; however, program activity levels will increase markedly. Because of substantial unobligated balances from the previous year, obligations for this program are expected to increase from $67 million to $105 million in 1997. Funding for ARC's larger highway program was cut by $9 million, falling to $100 million in 1997. However, because of unobligated balances, its obligations are expected to stay roughly constant at about $141 million.

USDA has several relatively small general assistance programs that are important for rural development. The Forest Service helps distressed timber-dependent and persistent-poverty communities diversify their economies and build development capacity through its economic recovery and rural development programs. Funding for these programs rises from $14.5 million to $17 million in 1997. The Resource Conservation and Development (RC&D) program, which provides assistance to over 270 designated RC&D areas to address local environmental, economic, and social needs, maintains steady funding at $29 million. USDA's rural economic development grants and loans, which cover project feasibility studies and startup costs, incubators, and other rural development activities, will see program funding rise in 1997: grants will rise from $7 to $29 million and loans will rise from $9 to $12 million. The new rural business opportunity grants, created by the 1996 farm legislation, begin in 1997 with $1 million; these funds are available for technical assistance, planning, training, and some other development-related activities.

New Initiatives Benefit Distressed Communities

The Empowerment Zone/Enterprise Community (EZ/EC) program empowers high-poverty communities to strategically plan for sustainable development and helps them obtain assistance from various Federal programs in order to implement those plans. USDA administers the program for 3 rural EZ's (which get access to $40 million each in Social Service Block Grants (SSBG), including substantial tax incentives) and 30 rural EC's (which get access to $2.95 million each in SSBG funds). The 33 rural EZ/EC's were designated in December 1994, and began receiving financial assistance in 1995 (fig. 2). By 1996, all 33 had begun to draw on the SSBG funds that automatically came with their designation, and by the end of the year, they had drawn down $34 million of their 10-year, $208.5 million in SSBG allocations. More is expected to be spent in 1997 and in future years. These communities are also receiving increasing amounts of other assistance. For example, the recently enacted work opportunity tax credit provides incentives for EZ/EC employers to hire zone residents (see article on tax changes). Several programs also have congressionally earmarked funds for EZ/EC's. Rural EZ/EC's got $54 million in earmarked USDA funds for infrastructure and business assistance in 1996, and $52 million in 1997. Many other Federal programs give EZ/EC's priority points in competing for funds. In the next few years (EZ/EC's designations last for 10 years), these communities are expected to apply for and receive increasing amounts of assistance, enabling them to implement their comprehensive development strategies.

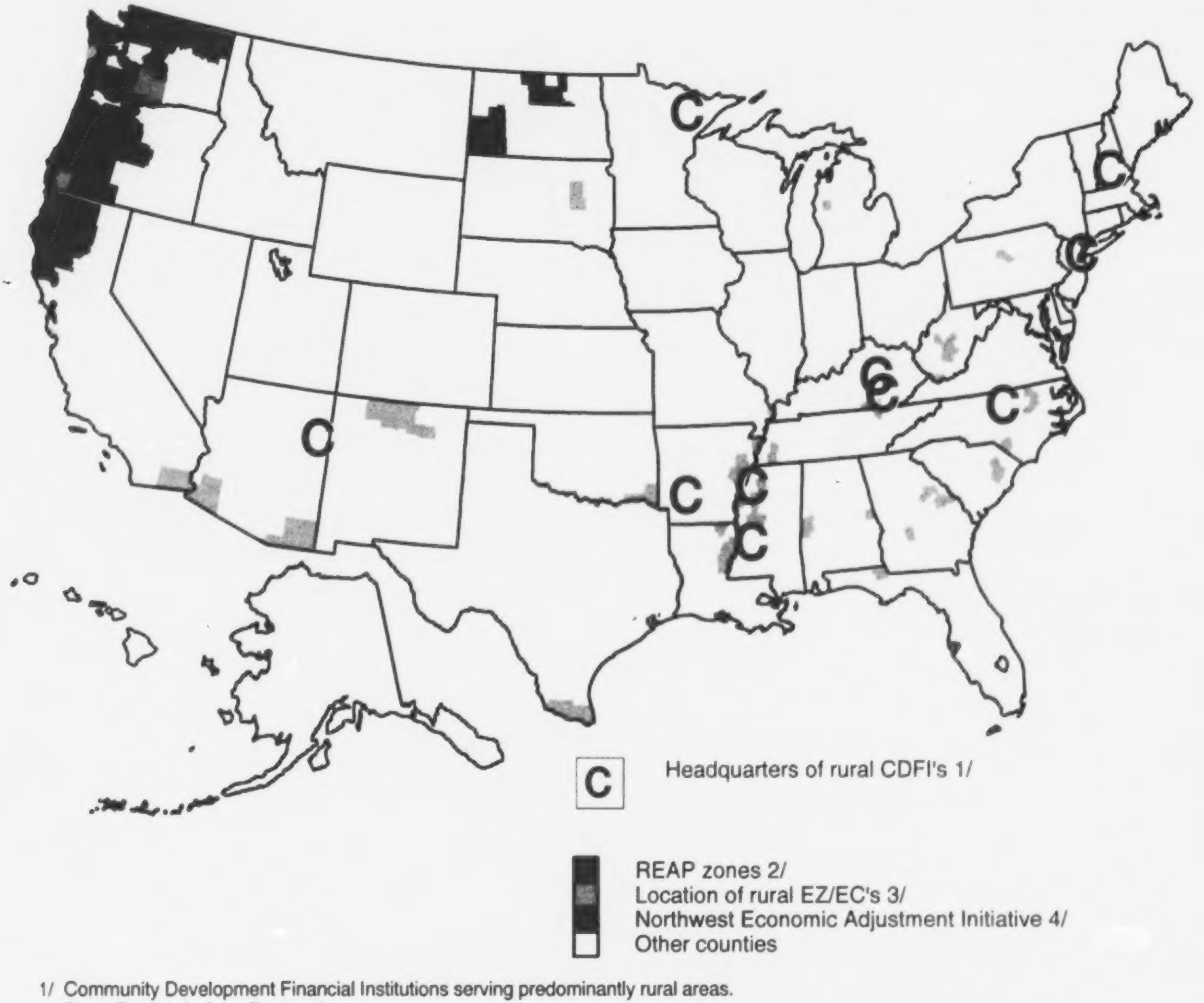
Similar to the EZ/EC program, the new Rural Economic Area Partnership (REAP) initiative assists rural places in the Northern Great Plains that are trying to diversify their economies to adjust to long-term outmigration and employment and population decline. Two multicounty REAP zones in North Dakota were designated by USDA (fig. 2). With USDA assistance, each developed a strategic plan in 1995, received $50,000 to implement a revolving loan fund, and has a USDA set-aside of $10 million in rural development program funding over the next 5 years to implement its plans.

The Northwest Economic Adjustment Initiative committed $1.2 billion over 5 years, beginning in 1994, to assist businesses, workers, tribes, and communities hurt by reduced Federal timber harvests in California, Oregon, and Washington (fig. 2). Rural areas are the primary beneficiaries: only a few metro counties in the affected region receive assistance. Financial and technical assistance comes from various Federal agencies (USDA, Labor, EDA, EPA, HUD, Interior), allowing a comprehensive approach to revitalization, coordinated with State and local efforts. Funding for the initiative began at $248 million in 1994, peaked at $268 million in 1995, dropped to $260 million in 1996, and is expected to decline slightly to $243 million in 1997. Much of this money comes from existing programs that are giving more priority to these places than before, such as the USDA Forest Service's $17 million in specially appropriated economic action funds in 1997.

Figure 2

Important new initatives providing general assistance

Community Development Financial Institutions and Empowerment Zones/Enterprise Communities often work together


C
Headquarters of rural CDFI's 1/
REAP zones 2/
Location of rural EZ/EC's 3/
Northwest Economic Adjustment Initiative 4/
Other counties

1/ Community Development Financial Institutions serving predominantly rural areas.
2/ Rural Economic Area Partnership.
3/ Empowerment Zones and Enterprise Communities in rural areas.
4/ Josephine County in Oregon is both an EZ/EC and a Northwest Initiative recipient.
Source: Calculated by ERS using data from USDA and Treasury Department.

The Community Development Financial Institutions (CDFI) initiative revitalizes distressed communities by enhancing the ability of selected financial organizations to extend credit and provide technical assistance to promote community development. CDFI's provide a wide range of financial products and services, including mortgage financing to first-time homebuyers, rental housing rehabilitation, startup business loans, and basic retail/consumer financial services for low-income residents. In July 1996, the newly created Federal CDFI Fund selected 32 financial organizations from 268 applicants to receive $37 million in Federal CDFI assistance. Although their headquarters are often located in metro areas, their service areas may include rural areas and encompass multistate regions or the entire Nation. About one-quarter of these CDFI's serve predominantly rural areas (their headquarters are shown in fig. 2), and another quarter serve a combination of rural and urban areas. They include nontraditional banks, credit unions, housing organizations, loan funds, and venture capital funds that specialize in community development. The CDFI Fund has also selected 38 traditional banks and thrifts to receive $13 million to extend more credit and services to distressed communities and to CDFI's. The budget for the CDFI initiative was $45 million in 1996 and $50 million in 1997. In the next several years, these funds are expected to leverage 3 to 4 times this amount in private capital, and much more capital over the long run.

Another initiative that provides general assistance is the National Rural Development Partnership. Beginning in 1990, this initiative was designed to strengthen the delivery of Federal support for rural development through the creation of State Rural Development Councils (SRDC's) in individual States. SRDC's represent a partnership of Federal, State, local, tribal, and private sectors. These councils meet periodically to help coordinate rural development strategies, develop new and innovative intergovernmental approaches, and resolve intergovernmental conflicts. As of 1996, 39 States had SRDC's. The National Rural Development Council, representing about 60 Federal agencies and representatives of public and private sector organizations, helps to coordinate participating Federal agencies and create teams of task forces to help focus Partnership efforts. Funding is difficult to project because it depends on contributions from various agencies. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

More Funds Are Available for Many Infrastructure Programs

Funding increased or remained unchanged in 1997 for most Federal infrastructure programs, including environmental, transportation, and other public works programs. The major new Federal infrastructure initiative is a 7-year program for financing drinking water systems.

Along with the passage of legislation clarifying environmental regulations and providing for increased regulatory enforcement, funding for most Federal environmental infrastructure programs has increased sharply for 1997. Of major significance was reauthorization of the Environmental Protection Agency's (EPA) Safe Drinking Water legislation (P.L. 104-182), which created an important new Federal aid program to help States finance new and improved local drinking water systems (see article on Safe Drinking Water Act). This measure makes available grants over 7 years to capitalize State Revolving Funds (SRF) that issue loans to help finance local improvements in drinking water facilities. In 1997, nearly $1.375 billion is available for the new Drinking Water SRF.

Also new in 1997 is EPA's $50-million Hardship Grants Program for Rural Communities, administered under the $625-million (1997) Clean Water SRF program, which finances the construction of wastewater treatment facilities. Under the Hardship Grants Program, small (fewer than 3,000 residents), disadvantaged (high unemployment, low income) rural communities are eligible for assistance in planning, designing, and constructing wastewater treatment facilities (fig. 1).

The U.S. Army Corps of Engineers received $4.5 billion in 1997 for new flood-control, navigation, and dredging projects (P.L. 104-303). The law provides $3.8 billion in Federal aid for 31 major water projects, plus nearly 60 smaller projects, benefiting areas such as the Florida Everglades and Cook Inlet, Alaska, and is supplemented by an additional $700 million in State and local government funds for these projects.

USDA's environmental infrastructure programs have received large funding increases. The largest USDA infrastructure program, the Water and Waste Disposal Program, provides loans and grants to small rural communities for financing wastewater systems. This program received $1.1 billion in 1997, nearly 25 percent above the 1996 level (table 1). This aid supports USDA's Water 2000 initiative, which aims to deliver safe, affordable drinking water by the year 2000 to the estimated 2.5 million rural residents with serious drinking water problems, including over 400,000 rural households that lack complete plumbing facilities. The highest levels of aid go to persistent-poverty counties in the South (fig. 2).

Most Transportation Programs Receive Increased Funding

The Department of Transportation's Highway Planning and Construction program, which provides grants for Federal-aid highways, is funded at $20.1 billion in 1997, just $163 million more than in 1996. This program is important in nonmetro counties, especially in the West where per capita allocations are highest. The Nonurbanized Area Formula Apportionments (section 5311) Program, which funds rural public transportation, received a 5-percent increase. This program is especially important in parts of the South.

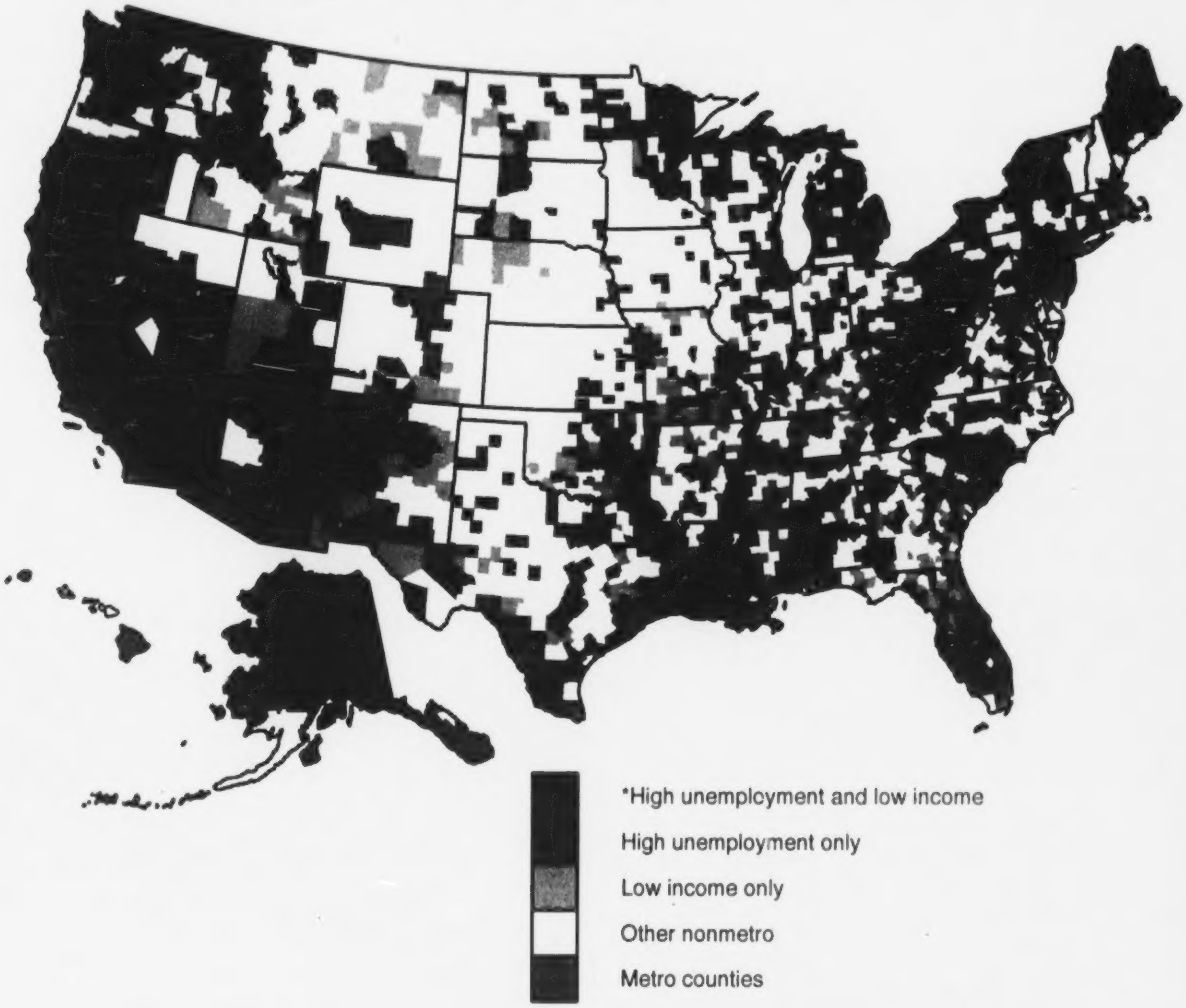
The Federal Aviation Administration (FAA) received an appropriation of $19.5 billion over 2 years and, in addition, will receive proceeds from the airline ticket tax (10 percent on domestic tickets), which was reimposed in 1997. Both measures allow for continued funding of the $1.46-billion Airport Improvement Program, which provides grants for rural airport capital projects, such as runway repaving, control tower improvements, and aviation safety projects. The $26-million (1997) Essential Air Services Program, which funds air service to small communities that lost service after deregulation, received a 15-percent increase for 1997, the largest percentage increase of any rural transportation program.

Passenger rail service received a 13-percent funding increase for 1997, with $844 million available for Amtrak in 1997. Even with the funding increase, Amtrak is operating under tight budgetary constraints (with funding down over 15 percent from 1995), after having been forced to cut back service on a number of rural routes in recent years. The Local

Figure 1

Overlap of high unemployment and low per capita income, 1994

Counties with both high unemployment and low income are concentrated in the South, New Mexico, Utah, Northern Plains, and parts of Texas along the Mexican border



* Counties have high unemployment (greater than 7.1 percent) and low per capita income (less than $14,700).
Source: Calculated by ERS using data from Bureau of Economic Analysis and Local Area Unemployment Statistics (LAUS), Bureau of Labor Statistics, Department of Labor.

Rail Freight Assistance Program, which provides money for maintenance of rail lines affected by freight carriers' abandonments or cutbacks, received no new funding, but it continues to operate on unspent funds.

Change in Other Infrastructure Programs

Some USDA infrastructure programs were cut. The Rural Housing Service's $194-million (1997) Community Facilities Loan Program, which provides essential community facilities in rural areas, was reduced more than 27 percent from the previous year in both the direct and guaranteed loan programs. The funding cut resulted partly because Congress

Table 1

Summary of selected rural infrastructure programs

Some USDA infrastructure programs had big funding increases in 1997

Program	Federal funding by fiscal year: 1996	1997 projected	Change	Rural areas most affected by the program
	Billion dollars		Percent	
USDA Rural Water and Waste Disposal Grants and Loans	1.05	1.31	24.5	Persistent-poverty counties in the South
USDA Rural Electrification Loans	.82	.83	.2	Totally rural and persistent poverty counties
USDA Rural Telecommunication Loans	.37	.50	35.2	Totally rural counties in the South
USDA Community Facilities Loans	.27	.19	-27.5	Totally rural counties in the West and South
USDA Distance Learning Loans and Grants	.01	.16	1,862.5	Persistent-poverty counties in the Midwest and West
DOT Highway Planning and Construction Grants	19.97	20.13	.8	Counties in the West
DOT Airport Improvement Grants	1.45	1.46	.7	Services-dependent and Federal land counties
DOT Nonurban Public Transportation	.11	.12	4.5	Counties in the South
EPA Clean Water State Revolving Fund (SRF)	1.35	1.35	0	Counties in the Northeast and Midwest
EPA Drinking Water SRF	0	1.28	—	Information not yet available
EDA Public Works Grants	.17	.17	0	Manufacturing counties

Program level, unless otherwise indicated.
Amounts shown for the Clean Water SRF take into account a transfer of funds from the Drinking Water SRF.
Source: Budget of the United States Government, fiscal year 1998.

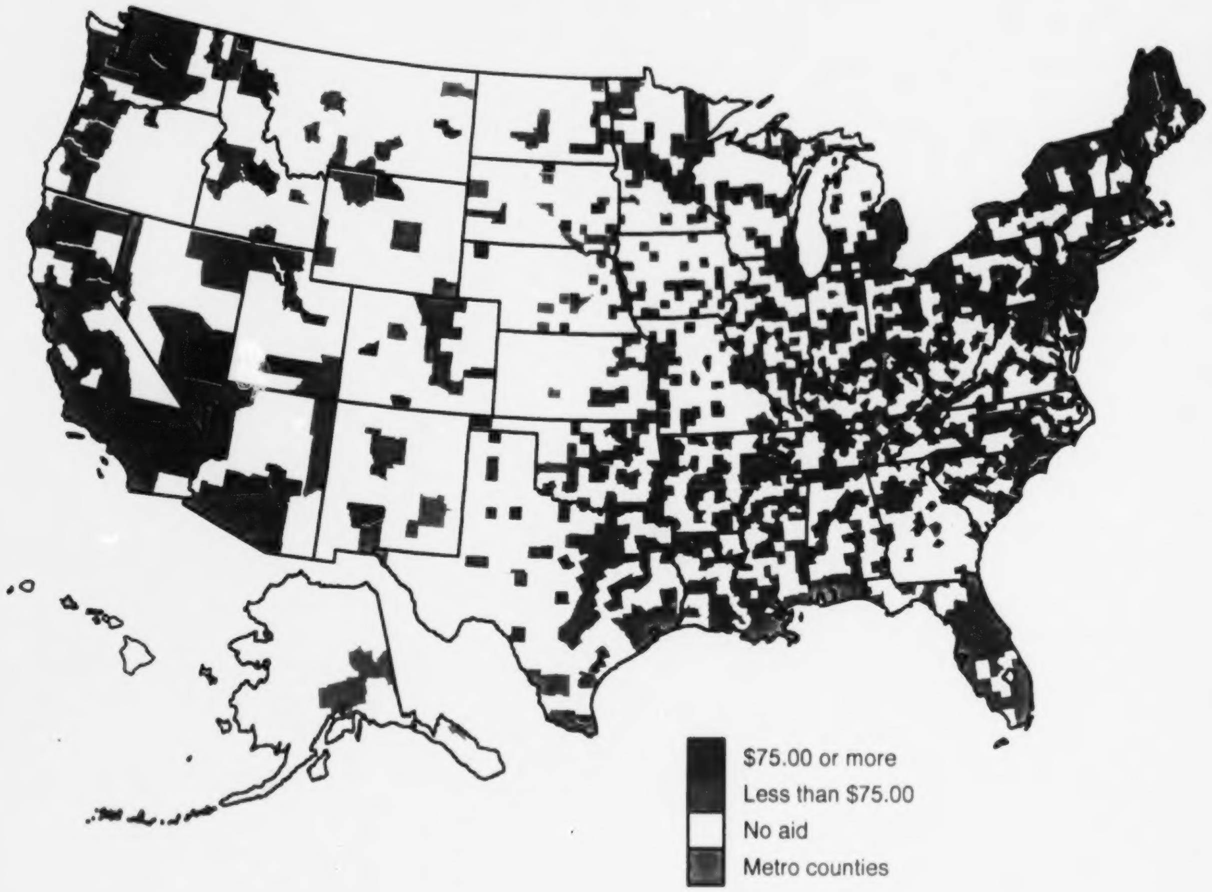
reduced budget authority for loan and grant programs included in the Rural Housing Assistance Program and partly due to other factors. Funds are allocated to each State proportionately based on its rural population, with the program mainly assisting rural areas in the South and the West in recent years. The Forest Service's $262-million (1997) Payments to States Program, which provides grants for public schools and roads on national forest lands, was also cut, modestly, by 2 percent.

In contrast, most telecommunications programs have more funding in 1997. USDA's $495-million (1997) Rural Telecommunications Program grew by 35 percent over 1996 levels, and the $176-million (1997) Rural Telephone Bank Program increased by nearly 40 percent. These programs, particularly important in the rural South, provide loans for upgrading and expanding telecommunications facilities that serve rural residents. USDA's $157-million Distance Learning and Medical Link Program, which provides loans and grants to serve rural education and health care facilities through telecommunications, was greatly expanded in 1997. Program funding increased nearly twentyfold over the previous

Figure 2

Per capita aid for USDA's Water and Wastewater Disposal Program, fiscal year 1995

Aid was highest for persistent-poverty counties, especially in the South



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

year to meet the huge demand for program funds. The Commerce Department's Information Infrastructure Grants Program, which promotes the widespread use of advanced telecommunications (the so-called Information Superhighway) throughout the Nation, had no funding change in 1997. This small, $21.5-million program (1997) benefits rural areas by using telecommunications to improve the quality and accessibility of various teleservices, such as health care and education.

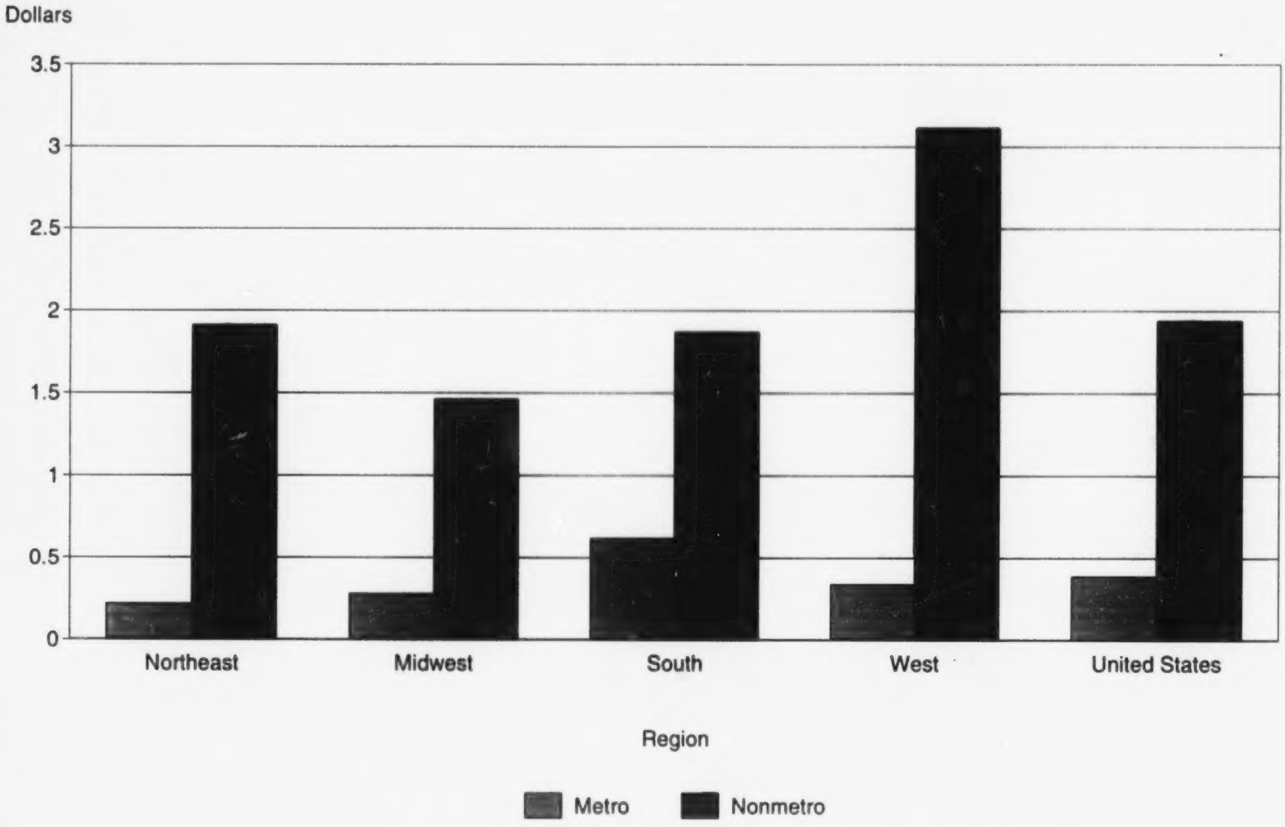
Funding for USDA's $825-million (1997) Rural Electrification Program, which provides loans for upgrading and expanding electric services to rural residents, was unchanged in 1997. This aid supplements money available from private credit sources and was most important to rural residents in totally rural areas and persistent-poverty counties in 1995.

Economic Development Administration (EDA) public works grants help distressed communities create jobs by attracting new industries, promoting business expansion, and diversifying local economies. This program particularly benefited the rural West in 1995 (fig. 3). EDA funds have been used for a variety of public facilities such as water and sewer systems, industrial access roads, port and railroad facilities, schools, and business incubators. Funding for the EDA Public Works Grants Program remained unchanged at $165 million.

Figure 3

Per capita funding for EDA public works grants, fiscal year 1995

Nonmetro counties in the West received the most aid



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Rural infrastructure will also benefit from the Fund for Rural America, which is providing $47 million for various rural development activities in 1997, including $8.4 million for Water and Waste Disposal grants. This fund is expected to provide additional infrastructure funding in 1998 and 1999. *[Dennis Brown, 202-219-0329, dennisb@econ.ag.gov]*

Reinvented Business Assistance Programs Promise To Do More With Less

Although appropriated funding has declined or remained constant for many of these programs, program activity levels are expected to increase for the main business credit programs that particularly benefit rural areas—small business loan guarantees and business and industry (B&I) loans and guarantees. To provide more assistance with less funding, Federal agencies have reinvented their programs, improving their efficiency. Many lending agencies are also streamlining their application processes and regulations, enabling more businesses to participate.

Rural businesses will be significantly affected by many legislative changes made in 1996, including changes in the minimum wage, new tax breaks for small businesses, new regulations covering insurance portability, and, most importantly, welfare reform. Increases in funding for education, training, and employment programs will ease the transition from welfare to work (these changes are discussed elsewhere in this report). However, funding did not generally increase for the business assistance programs that help create the new jobs that will make room for the new welfare workers. New budget authority has even declined for some of these programs, such as Small Business Loans and Guarantees.

Despite these declines in funding, the Federal agencies that provide business assistance are attempting to continue to expand the amount of credit available to rural (and urban) businesses, through various means. In some cases, they are making use of old funds by drawing down funds that were unobligated from last year. New funding sources, such as the Fund for Rural America, are supplying new funds for USDA's business and industry program.

These are short-term solutions. Potentially more important for the long run are the reinvention efforts these agencies are undergoing, aimed at improving efficiency and increasing program activity and performance. Among the new approaches being taken or proposed are (1) agency reorganizations and downsizing to reduce overhead costs and improve efficiency; (2) transferring some responsibilities and fees to private sector lenders in guaranteed loan programs; (3) streamlining regulations and application processes to attract new lenders and borrowers into the programs; (4) reducing the subsidies on direct loans to make appropriations go farther; (5) improving the selection process to better target assistance to firms and communities that need it most; and (6) increasing use of program evaluations and performance benchmarks to improve program performance.

We present the agency estimates of expanded program activity, as contained in the President's budget. Historically, these kinds of estimates have not always proven to be accurate, since they depend on many things, including the economy, which affects the demand for business loans and interest rate subsidy levels required on direct loans. More important, it remains to be seen whether Federal business assistance agencies can succeed in expanding program activity without receiving more funds, because the outcome from their reinvention efforts cannot be accurately predicted. If successful, however, rural businesses could benefit from these efforts for years to come.

Program Activity Expected To Increase in 1997

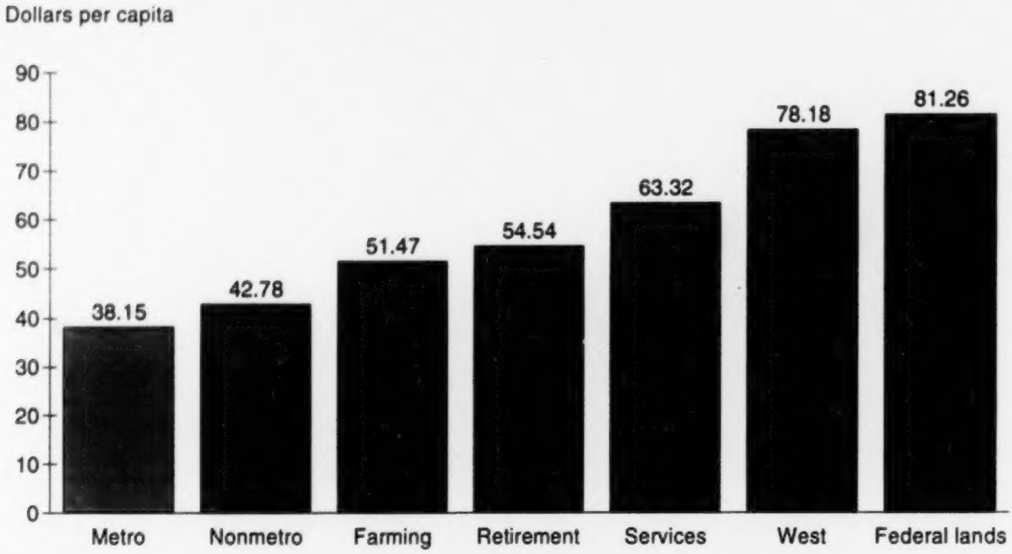
The Small Business Administration (SBA). SBA operates various programs that address different business needs. SBA's largest business loan program, the section 7(a) guaranteed loan program, is projected to increase its new obligations from $7.3 billion in 1996 to $7.8 billion in 1997 (all references to years refer to fiscal years). In past years, this program has particularly benefited nonmetro areas, many of which rely almost exclusively on small businesses for their employment. For example, in 1995, nonmetro areas received more in per capita Small Business 7(a) guarantee assistance than did metro areas; the nonmetro areas that benefited most were those in the West and in counties specializing in services, retiree attraction, and farming (fig. 1).

The second largest SBA program, the section 504 Certified Development Loan Company program, is increasing its obligations from $2.4 billion to $2.6 billion in 1997. In 1995, its loan guarantees were allocated about equally, on a per capita basis, between metro and nonmetro areas; among nonmetro areas, western counties and counties emphasizing service industries benefited the most (table 1).

Figure 1

SBA small business loan guarantees, by type of county, fiscal year 1995[1]

Small business loan guarantees disproportionately benefit rural areas in the West and those specializing in services.



[1] 7(a) General Business Assistance Program, only.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

SBA's main direct loan program provides disaster loans, including physical disaster loans and economic injury disaster loans. New obligations for SBA disaster loans are expected to decline from $867 to $747 million, but supplementary funding could add to this total in the event of major disasters in 1997. In 1995, metro areas in the West received the large majority of SBA's disaster loans, mainly in the form of physical disaster loans (by far the larger of the two direct loan programs). This was associated with the 1994 California Northridge earthquake. The smaller, economic emergency disaster loan program benefited nonmetro areas more than metro areas in 1995, with farming areas in the Midwest benefiting most.

USDA's Rural Business-Cooperative Service (RBS). RBS's main business assistance programs are the Business and Industry (B&I) program, the Intermediary Relending Program, and the Rural Business Enterprise Grants (RBEG) program. Smaller RBS programs include Rural Technology and Cooperative Development Grants ($2 million in 1997), Rural Business Opportunity Grants ($1 million), and Rural Economic Development Grants and Loans ($41 million). The latter two programs are covered in the article on general assistance.

The B&I program includes both guaranteed loans and direct loans. The larger guaranteed program is projected to provide $688 million in loan guarantees in 1997, up 8 percent from 1996. In 1995, B&I guarantees disproportionately benefited farming counties and Federal lands counties in the West. This program also is providing $50 million in direct loans in 1997; no such loans were provided in 1996. USDA's Intermediary Relending Program is projected to provide $37 million in loan guarantees in 1997, about the same as in 1996. The RBEG program grant level is $41 million in 1997, down 8 percent from 1996. This includes $6.5 million in grants from the Fund For Rural America in 1997.

Table 1

Selected business assistance programs

Most business loan guarantee programs are expected to increase their loan activity in 1997

Program	Program level by fiscal year[1] 1996 actual	1997 estimate	Change	Rural areas most affected by the program
	Billion dollars		Percent	
SBA 7(a) business loan guarantees	7.32	7.81	7	Services, farming, and retirement counties, in West
SBA Certified Development Loan Company guarantees (Section 504)	2.44	2.65	9	Services counties, in West
SBA disaster loans	.87	.75	-14	Places experiencing disasters
RBS Business and Industry loan guarantees (B&I)	.64	.69	8	Farming and Federal lands counties, in West
RBS Intermediary Relending Program guarantees	.04	.04	0	Services, farming, nonadjacent and poverty counties, in West and Midwest
RBS Rural Business Enterprise Grants (RBEG)	.05	.05	0	Totally rural, farming, and poverty counties, in West
EDA Economic Adjustment[2] Grants	.03	.03	0	Farming and totally rural counties, in West

[1] Budget authority used for grant programs; projected loan levels (obligations or program level) used for loan programs. Note that in some cases, budget authority may be falling at the same time that projected loan obligations are rising. This can happen for any number of reasons, including making use of greater efficiencies, reducing subsidies, charging fees, and using unobligated balances of funds from prior years.

[2] This represents just part of the larger EDAP program (see text); many of these grants are used to support revolving loan funds that issue loans to businesses, hence a larger amount of loans will result than is indicated by this budget authority amount.

Source: Budget of the United States, fiscal year 1998.

Commerce Department's Economic Development Administration (EDA). EDA operates another important program benefiting rural businesses, the Economic Adjustment Program. Some of the funding from this grant program is used to capitalize revolving loan funds that make loans to businesses in economically distressed areas. The budget for the Economic Adjustment Program remains steady at about $31 million in 1997.

Many other programs provide business assistance to rural areas (see *Rural Conditions and Trends*, Vol. 7., No. 2, for a list). One of the newest is the Community Development Financial Institution (CDFI) initiative, which helps finance businesses, housing, and other activities in distressed communities. This program is discussed in more detail in the article on general assistance.

Reinvented Business Assistance Programs

Government reinvention efforts arising, in part, from compliance with the Government Performance and Results Act (GPRA) are expected to improve program efficiency. Many agencies are counting on these efficiency gains to result in greater program benefits despite constant or reduced program appropriations. Some of these new initiatives are improving efficiency by shifting program activities to the private sector. Some are aimed at opening up the programs to new lenders and borrowers. Most involve streamlining regulations and application processes, reducing paperwork burdens on applicants. Priorities given to applicants in the selection process have been revised to match up loans better with deserving businesses and distressed communities. Many agencies have downsized and consolidated activities and instituted strategic planning with performance standards to monitor and guide future policy. Some agencies have moved toward more extensive program evaluation.

New B&I Guaranteed Loan Program Regulations. RBS has streamlined its regulations and paperwork requirements, making it easier for businesses to apply for assistance. RBS's new B&I regulations also pass some of the responsibility for loan documentation and analysis to lenders, thereby achieving new efficiencies.

The new regulations for the B&I program, announced in February 1996, were motivated in part by a Senate report on the fiscal year 1995 appropriations act, which contained a directive for streamlining the B&I regulations and application procedures. An internal review also found that many small borrowers avoided program participation because of costly program requirements and suggested some program costs could be reduced by shifting activities to the private sector.

The new regulations are streamlined and less paperwork must be provided to the agency, making it easier for borrowers and lenders to participate. New rules also increase the potential pool of lenders by allowing the agency to approve additional lenders with sufficient legal authority, lending expertise, and financial strength to act as lenders in the program. Agency operation costs are cut by reducing the amount of material that must be reviewed by the agency before approval of the guarantee, and responsibilities for credit analysis and application processing are being shifted from the agency's national office to field offices and to lenders where feasible.

A standard guarantee fee of 2 percent will be paid to the agency by the lender and is nonrefundable. The fee can be passed on to the borrower. The new rule allows for the guarantee fee to be reduced to 1 percent if the agency determines that the business is a high-impact business located in a community that is experiencing long-term population decline and job deterioration or located in a rural community that has remained persistently poor over the last 60 years. Each year, a limit will be established specifying the maximum portion of guarantee authority that will be available to guarantee loans at the 1-percent fee rate.

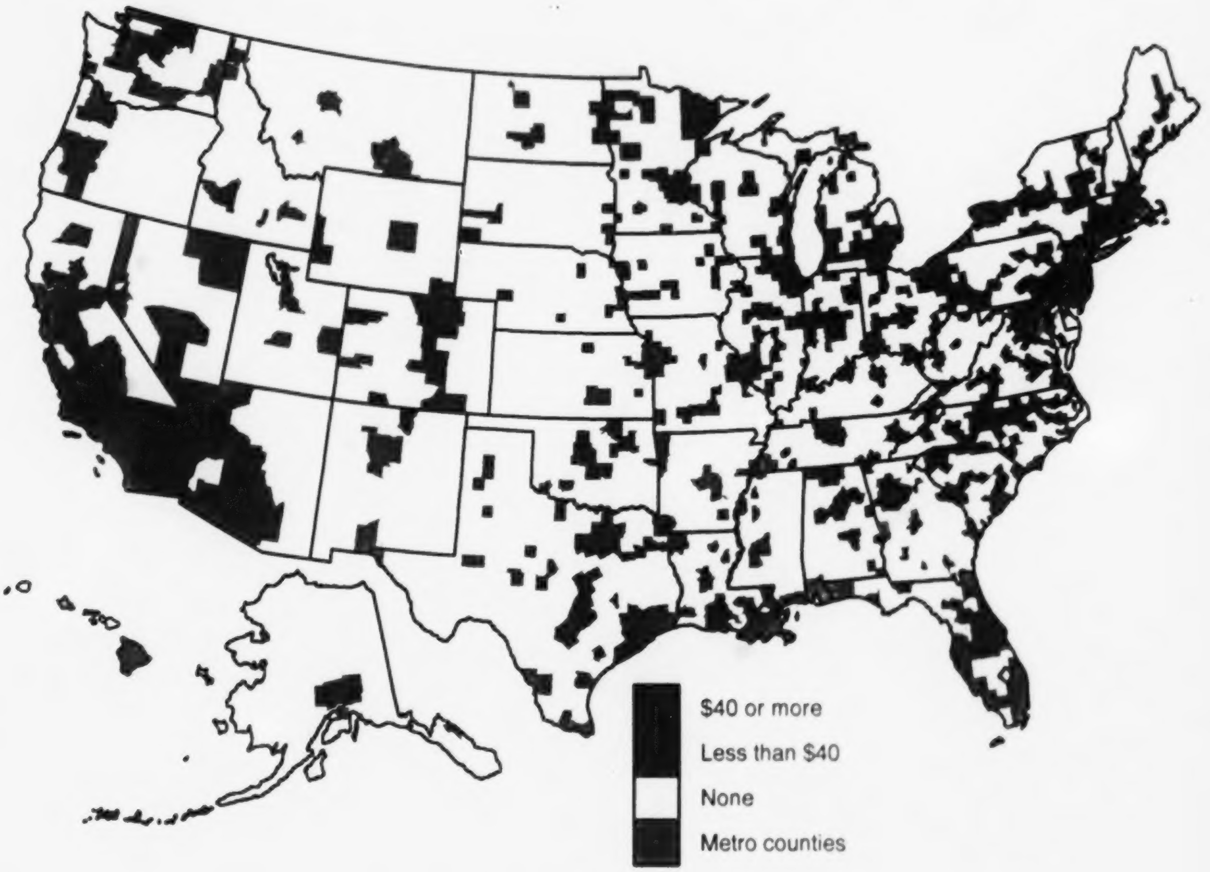
RBS loan priority is now given to nonmetro unincorporated areas and cities with less than 25,000 population, communities that have experienced long-term population decline, and rural areas that have remained persistently poor over the last 60 years. Empowerment zones will also receive preferential treatment. This may result in B&I guarantees being concentrated in certain regions more than in the recent past, when they were more scattered across the country (fig. 2).

A regulatory change mandated by the 1996 farm legislation authorizes the B&I program to issue guarantees for family farmers who sell their products to a cooperative. These loans to agricultural producers are only available when producers are not eligible for Farm Service Agency program assistance, and will be allowed only if the production is part of an integrated business involved in the processing of agricultural products. Examples include an apple orchard or poultry operation whose sales are tied to a particular food processing business.

Figure 2

Per capita business and industrial loan guarantees, fiscal year 1995

Assistance benefits many rural counties throughout the country



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

EDA Reinvention Efforts. EDA has made much progress in reinventing its programs, including streamlining its regulations and applications process, reorganizing and downsizing its staff, and making greater use of program evaluations and performance measures. Beginning in the early 1990's, EDA discovered that the application process was extremely costly for applicants and the review process took so long that, in some cases, timely responses to community distress were not possible. EDA's response has been to streamline its regulations, including its grant application and pre-application forms. Beginning in 1996, EDA introduced a single application form for all applicants for EDA grants. This is expected to open up the program to businesses and other customers that might otherwise have avoided it. Applicants also benefit from reduced paperwork and quicker EDA reviews (within 60 days).

Following a review by Price Waterhouse and a reduction in funding by Congress, EDA has recently reorganized for greater efficiency and downsized its operations. Functions were consolidated, staff was cross-trained, and decisionmaking was decentralized, giving grant approval authority to six regional offices. Since 1995, EDA staff has fallen from 355 to 255 and its headquarters staff has been cut by 35 percent.

In October 1996, EDA began a series of evaluations of its major programs. These evaluations and new core program performance measures are already beginning to yield significant information that can be used to improve program performance.

SBA Proposals. In recent years, SBA has been developing performance measures to improve program efficiency. These efforts have already brought about some improvements in program performance, and further improvements are expected if SBA's current proposals can be implemented.

One proposal is to continue increasing its reliance on private sector partners. Three initiatives would allow SBA to complete its transition from physically servicing and liquidating its $36-billion loan portfolio to overseeing its private sector partners. First, section 7(a) general business lenders will be required to service and liquidate all loans approved after fiscal year 1997. Second, SBA will sell its $10-billion portfolio of defaulted guarantees and direct loans beginning in fiscal year 1998. Third, SBA wants to improve its portfolio-monitoring capabilities.

To stretch taxpayer dollars, SBA plans to have (1) the Small Business Development Companies charge counseling fees to make up for reduced Federal grants, and (2) disaster loan borrowers pay a higher interest rate, equal to the rate on Treasury securities of comparable maturity. Another SBA proposal would put additional resources into programs that give disadvantaged small businesses access to capital, education, and training.

A Pattern Is Emerging for the Future of Business Assistance Programs

The impact of these new performance measures and regulations is largely unknown. However, a pattern is emerging for the future of business assistance programs. Participating private sector partners will be shouldering a greater burden, verifying that borrowers meet program guidelines and seeing that program requirements are met. In return, private sector partners are supposed to receive a streamlined and less costly set of guidelines and paperwork. Program agencies will continue to downsize and reorganize to reduce costs, but they appear to be weathering these changes so far without sacrificing too much in program delivery. Program agencies maintain considerable control over how funds are distributed, and they seem to be more selective in targeting assistance to fit program objectives, such as assisting distressed communities. Program agencies also still have control over conditions that must be met before a loan can be classified as being in default, thus providing some control over default losses that the agency guarantees. *[George Wallace, 202-501-6751, gwallace@econ.ag.gov, and Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Federal Housing Assistance Emphasizes Loan Guarantees

Continuing the trend of recent years, the volume of home mortgage loan guarantees by Federal agencies is rising while direct lending is falling. Loan guarantees are outdistancing direct loans in USDA's main housing program (Section 502), which assists in the purchase of single-family homes.

Federal housing programs continue down the path of greater economy by reducing the size of many of the more heavily subsidized programs and lowering the subsidies provided to each program participant. While these direct lending programs continue to shrink, the much less costly mortgage guarantee and insurance programs are growing. Such programs charge insurance fees, which cover a substantial portion of loan losses and operating costs. Direct lending programs are usually targeted to lower income borrowers than are loan insurance programs. While housing is a tool for economic and community development, the net impact on rural economies of shifting the program focus from direct to insured loans is unclear. In addition to the activities of Federal agencies discussed below, two government-sponsored enterprises (GSE's)—the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)—are major players in home mortgage financing. Both GSE's have initiatives to increase their purchases of rural mortgages.

Home Ownership Grows and the Housing Sector Is Healthy

The majority of American families (65.4 percent) own their homes. Home ownership is highest in rural America, where the nonmetro home ownership rate averaged 73.5 percent for 1996, compared with a similar 72.7 percent for metro suburbs and 49.7 percent in central cities. Home ownership for each of these areas is at its highest level in over a decade, with both nonmetro and suburban levels rising at least 0.7 percent in both 1995 and 1996.

The housing sector was fairly robust in 1996, whether measured by home sales, housing starts, or building permits. Nationally, there were record sales of existing homes (4,086,000) and all homes (4,842,000), despite some downturn in the fourth quarter. Permits for the construction of 234,100 housing units in nonmetro places during 1996 was 8.5 percent above the 1995 level, while the metro level of 1,196,800 was up 7.2 percent.

Mobile homes are a significant source of rural housing. In 1993, 47 percent of the 5.655 million mobile homes used as residences were in nonmetro areas. Nearly 13 percent of nonmetro households live in mobile homes compared with 4 percent of metro households. Mobile home sales of 311,000 for 1996 were at their highest level since 1974. Fifty-eight percent of these homes were in the South, which continues to receive over half of all mobile home shipments. The average price of a new mobile home in 1996 was $36,300, up 8.4 percent from 1995.

While a substantial minority of both rural and urban households benefit from Federal housing programs, these programs reach a smaller share of rural households. The 1993 American Housing Survey found that 17 percent of nonmetro and 26 percent of metro home mortgages were either from, or insured by, a Federal Government agency (fig. 1).

The Department of Housing and Urban Development's (HUD's) Federal Housing Administration (FHA) is primarily responsible for housing assistance and consequently provides the largest amount of home mortgage assistance, both in urban and rural areas. However, USDA's Section 502 direct and guaranteed program, administered by the Rural Housing Service (RHS), plays an important role, accounting for almost one-fourth of all Federal mortgage assistance to nonmetro households (fig. 1).

Section 502 loan guarantees are taking on an increasing importance in rural areas as the current emphasis of home ownership programs is to use guaranteed/insured loans from private lenders rather than direct loans. Since its start in fiscal year 1992, the volume of loan guarantees has increased each year, a trend that is expected to continue in fiscal year 1997. Over this same period, the amount of Section 502 direct lending has been declining. As a result, Section 502 guarantees are approaching four times the dollar amount of direct loans (table 1). It should be noted that the 1997 decline in direct lending is caused by increased market interest rates that in turn raised the amount of subsidy associated with each direct loan. Thus, the funding provided for interest subsidies could not support the lending levels anticipated when the budget was passed.

The subsidy to the typical government home mortgage program borrower has dropped with the declining number of direct loans, which usually employ such subsidy tools as reduced transaction costs, below-market interest rates, and relaxed lending standards, including smaller downpayment requirements. Additionally, the subsidy cost associated with each direct loan is less because borrowers are often charged higher interest rates, and a portion of prior subsidies may be recaptured.

While on a per capita basis urban areas receive more Federal funds for rental housing than do rural areas, the difference is much less than that for home owner programs. In fiscal year 1995, the largest programs for rental housing provided about $99 per capita in urban and $67 per capita in rural areas. By comparison, the major home ownership programs provided per capita amounts of $224 in urban and $67 in rural areas. While owner programs have a clientele base that includes many moderate income families, renter programs are almost exclusively focused on the low-income population. Renter programs operate either by subsidizing rents for those unable to afford adequate housing, or by promoting an increased supply of low-cost rental housing. Both approaches can be found in a single program, such as the RHS Section 515 program where financing costs are subsi-

Table 1

Summary of largest housing programs

Projected levels of Federal housing loan programs in 1997 are up from 1996 levels for guaranteed and insured loans, but down for direct loans

	Program level by fiscal year			
Program	1996 actual	1997 projected	Change	Rural areas most affected by the program
	Billion dollars		Percent	
USDA/RHS				
Single Family Housing (Sec. 502) Direct Loans[1]	1.02	0.73	-28.5	(All Sec. 502) large metro fringe, Midwest & West, retirement counties.
Guarantees	1.70	2.70	58.8	Same as above.
Multifamily (Sec. 515)	0.15	0.15	1.3	Totally rural & nonadjacent, Northeast, West, commuting counties.
Rental Assistance	0.54	0.52	-3.0	Same as above.
VA				
Loan Guarantees	28.68	30.23	5.4	Urban nonmetro & adjacent, West (***not*** Midwest), retirement counties.
HUD				
FHA Single-Family Mortgage Insurance	65.77	71.15	8.2	Urban nonmetro, West.

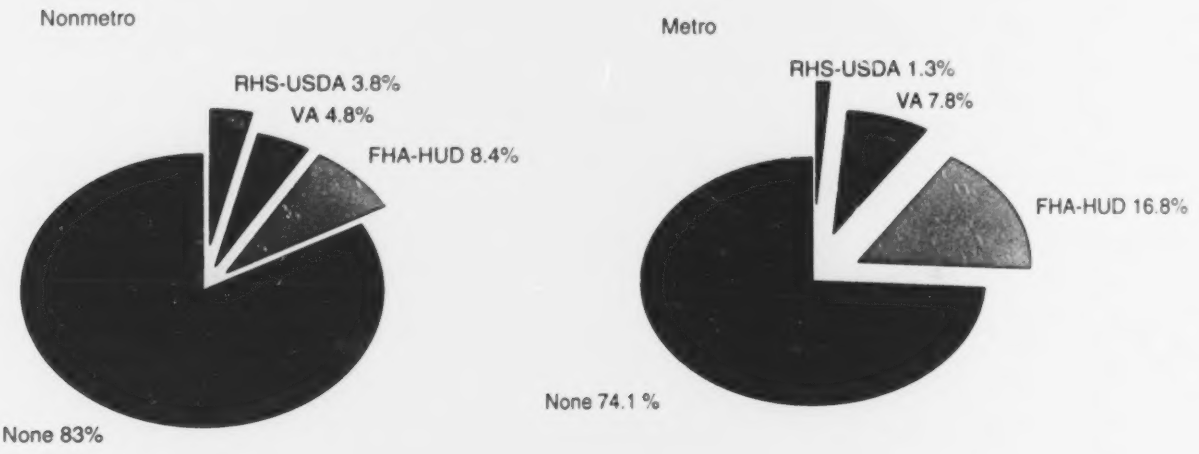
[1] Includes $141 million in loans, paid for by $20 million from the Fund for Rural America.

Source: ERS calculations based on the Budget and Census's Federal Funds data.

Figure 1

Federal agencies and home mortgage lending, 1993

Smaller share of rural lending is federally insured or direct



Source: ERS tabulations from American Housing Survey for the United States, 1993.

dized in return for an agreement that units be rented to program participants at reduced rates. HUD is replacing housing subsidies that are tied to particular rental units for a long period of time with more flexible tenant assistance, which gives greater attention to housing vouchers, local control, and home ownership options. While HUD Section 8 vouchers play a larger role in urban programs, they are also used in rural areas. Although HUD operates the only voucher program, some voucher recipients are tenants in RHS projects.

Department of Agriculture (USDA) Loan Guarantees Are Increasing

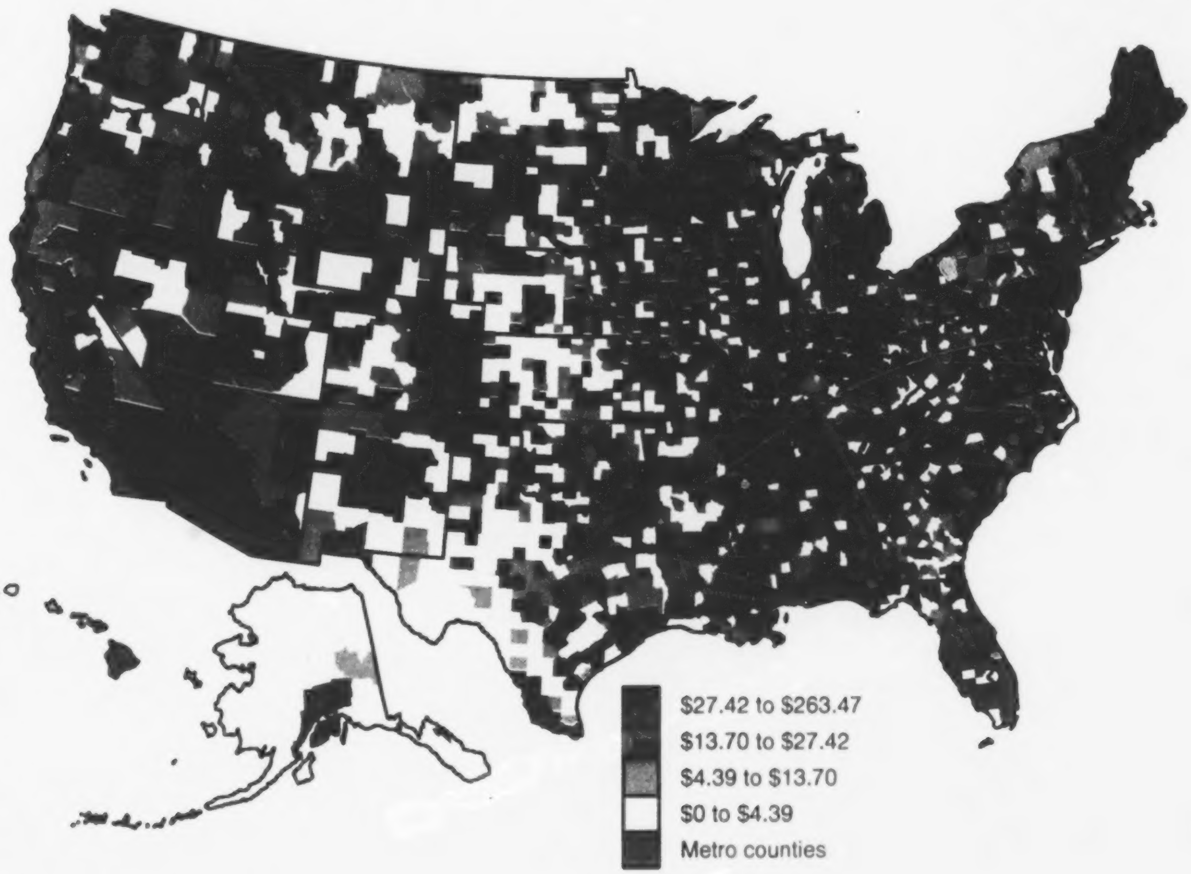
USDA's housing programs are administered by the Rural Housing Service (RHS), which was created out of the Farmers Home Administration (FmHA) in a 1994 departmental reorganization. RHS housing programs provide assistance in rural portions of both nonmetro and metro counties. The largest RHS housing program is Section 502 single-family housing, which constitutes over three-fourths of the agency's housing loan activity. New RHS lending in fiscal year 1995 split about equally between nonmetro (47 percent) and metro (53 percent) areas. Nonmetro counties with higher per capita levels of these loans were concentrated in upper New England, parts of the Mountain West, and scattered across the Midwest and Southeast (fig. 2).

The Section 502 program has changed considerably in the last 3 years. As discussed earlier, the direct lending share is falling, because most of this program's new activity comes from loan guarantees. In turn, since only direct loans carry a significant subsidy, per borrower program costs have fallen. Subsidy expenses on new loans have also been lowered by changes in program regulations that increased the effective interest rate on most direct loans. Subsidies on direct loans also rise and fall in tandem with movements in market interest rates. This is because the effective interest rates on most new direct loans are set without consideration of market interest rates. A major change planned for fiscal year 1998 aims to provide further cost savings to the Government mostly through lowering administrative expenses.

Figure 2

Per capita USDA nonmetro single-family housing loans, fiscal year 1995

The distribution is fairly even except for low levels in the Plains



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

RHS is using loan leveraging programs to reach more low-income borrowers with its limited funds for direct lending. In addition to such programs with Fannie Mae and Freddie Mac, RHS has entered loan-sharing agreements with various public, private, and nonprofit entities. Under these arrangements, RHS makes a second-trust reduced-interest loan for a portion of the total financed amount, paired with a companion loan for the remaining amount. Unless the companion loan also carries a greatly reduced interest rate, this program cannot reach RHS's lowest income clientele. When the companion loan is a conventional market-rate mortgage, total mortgage payments by the borrower will be below those on a conventional loan, but well above those on a RHS loan of the entire amount at their minimum interest rate of 1 percent. Because RHS takes essentially all of the risk exposure for the combined loan, RHS's future loss rate may be higher than if RHS were the sole lender, because they are involved in more loans.

The RHS administers other housing programs for the same rural areas eligible for the Section 502 program. The largest of these activities in 1995 provided rental assistance for low-income tenants in RHS-financed rental housing, which averaged under $8 per nonmetro person. Though smaller than the total amount of mortgages guaranteed by RHS, rental assistance payments are the agency's most expensive program because the program involves only direct expenditures. In fact, the $524 million in estimated fiscal year 1997 budget authority is two-thirds of the total for all RHS loan and grant programs, exclusive of costs for salaries and expenses. Additionally RHS's Section 515 multifamily housing program provided financing of under $3 per nonmetro person for the construction, purchase, rehabilitation, or repair of low-income rental housing. The combined amount that nonmetro areas received from these two rental housing programs in fiscal year 1995 is about half of the $21 per capita of Section 502 loans. Although over two-thirds of such RHS rental housing assistance, both loan and grant, went to nonmetro areas, this was true for just under half of all Section 502 loans. Section 515 and rental assistance programs are expected to account for about 16 percent of RHS's total loan and grant activity for fiscal year 1997, while Section 502 lending will comprise 76 percent. Additional RHS programs include such activities as very-low-income home repair, self-help housing, and farm-labor housing. The largest increase in RHS programs was for mutual self help housing grants, with a fiscal year 1997 budget of $26 million, which doubled the previous year's level.

FHA Insurance Expands Dominant Role in HUD Housing Programs

HUD's main housing activity is FHA's single-family home mortgage insurance program, which provided $65.8 billion of mortgage insurance in fiscal year 1996, and is projected to top $71 billion in 1997. Only 6 percent of the amount insured in fiscal year 1995 was in nonmetro areas. These nonmetro loans were concentrated in the West and in counties that were more urbanized or had large numbers of retired persons (fig. 3). Loan levels were much lower in the more rural counties. Totally rural counties that were not adjacent to a metro area had only $19 of such loans per capita, compared with a nonmetro average of $48 and a metro average of $182. The nonmetro geographies of FHA and RHS Section 502 programs contrast sharply. For instance, there is much greater variation in the per capita level of FHA lending by various county classifications, and the Midwest had the lowest per capita levels for FHA and the highest for RHS. The largest housing program financed by direct outlays or grants was HUD's $18.1-billion Section 8 low-income housing assistance program, of which nonmetro areas received 13 percent. This multifamily housing program is undergoing substantial change as HUD's housing strategy moves away from long-term financing commitments for low-income rental housing.

The most important low-income housing issue is how to deal with the impending expiration of rental assistance contracts on approximately 1.8 million housing units that provide housing for 4.4 million persons. This issue has been building to a crescendo because of a late 1970's spike in the construction and rehabilitation of Section 8 housing under 15-year to 20-year contracts. Since 1995, expiring contracts have been renewed for a year at a time, meaning that each year a growing number of expiring 1-year contracts are added to expiring longer term commitments.

The future of HUD and its programs is still being debated, but major changes have already been made and others are in the works. Future HUD programs seem destined to be far fewer in number and much more flexible in how they are used. State and local governments will have much more control over what will likely be a reduced level of funding. There is a strong commitment to expanding the opportunity for home ownership to a wider audience and to reducing the role of large-scale low-income housing projects.

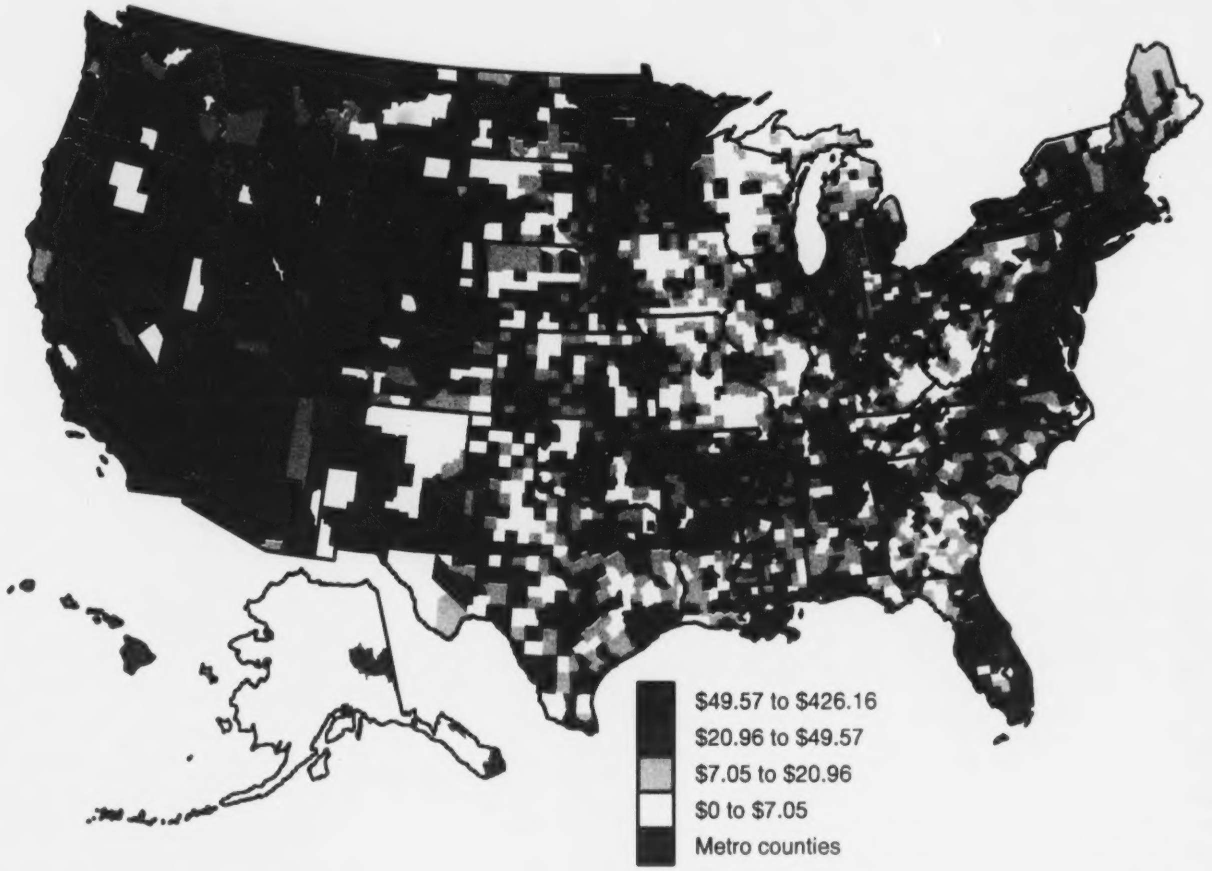
Department of Veterans Affairs (VA) Mortgage Insurance Concentrates in Urban Areas

VA housing loans are expected to total about $30 billion in fiscal year 1997, a 5-percent increase from 1996. About 11 percent of VA's housing program activity is in nonmetro areas. Nearly all of that is in the form of guaranteed loans. In 1995, rural areas received less than $18 per capita of such VA loans, half of that received by urban areas. VA nonmetro loan levels were highest in the most urban and adjacent counties ($20) and lowest in the most rural and nonadjacent counties ($9). By region, nonmetro lending was highest in the West ($31) and lowest in the Midwest ($12). VA guarantees cover loan losses

Figure 3

Per capita FHA mortgage insurance, fiscal year 1995

There is a heavy concentration in the nonmetro West



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

that may be as much as 50 percent, but not more than $36,000 for loans up to $144,000. For larger loans, the guarantee amount can be somewhat higher.

At one time, the typical VA loan was available with no fee to the borrower, but now borrowers usually pay a fee that is a percentage of the loan amount. Fees are higher for certain loans, including those with smaller downpayments. Some special borrowers can receive the loan guarantee at no cost. In the past, the VA targeted direct loans to "rural areas where availability of private mortgage funds was limited." This is no longer true. Direct loans are now restricted to financing specially adapted housing assistance for certain disabled veterans. *[Jim Mikesell 202-219-0098, mikesell@econ.ag.gov]*

Funding Increases for Education, Training, Employment, Environment, and Natural Resources

Many funding increases this year are associated with regulatory changes. Increased funding for education, training, and employment programs will help rural areas adjust to welfare reform; increased funding for environment and natural resources will help in adjusting to new environmental standards and concerns.

Education programs received the largest funding increases in this group for 1997 (all references to years in this article are to fiscal years). The greatest increases, in total dollars, went to the largest programs, including college student financial assistance (such as Pell grants), direct student loans, special education aid for the disabled, Head Start for low-income preschoolers, and title 1 elementary and secondary school aid for disadvantaged students (table 1). Except for student loans, which tend to be most important in farming areas and in the Midwest, most of these programs benefit low-income students and, hence, rural poverty areas may benefit the most from these changes. The program receiving the largest increase in funding, title 1 aid for disadvantaged students, is one of the most highly targeted programs to distressed rural areas, particularly benefiting poverty, mining, and totally rural areas (fig. 1).

Some smaller education programs increased rapidly in percentage terms. Education technology aid more than tripled (289-percent increase), while funding for the new Goals

Table 1

Selected education programs

Most education programs experience double-digit funding growth

Program	Funding level by fiscal year[1]			Rural areas most affected by the program
	1996 actual	1997 estimate	Increase	
	Billion dollars		Percent	
Head Start	4.80	5.40	13	Poverty counties, in West and South.
Title 1 elementary and secondary school aid for disadvantaged students	5.90	7.69	30	Poverty, mining, totally rural areas, in West and South.
Special education for the disabled	3.24	4.04	24	Poverty States, Midwest States.
Student financial assistance (Pell grants)	6.26	7.56	21	Government and poverty counties, in West and Northeast.
Direct student loans	8.36	9.93	19	Farming States and Midwest States.
Guaranteed student loans	16.71	16.97	2	Farming, Midwest, and Northeast States.

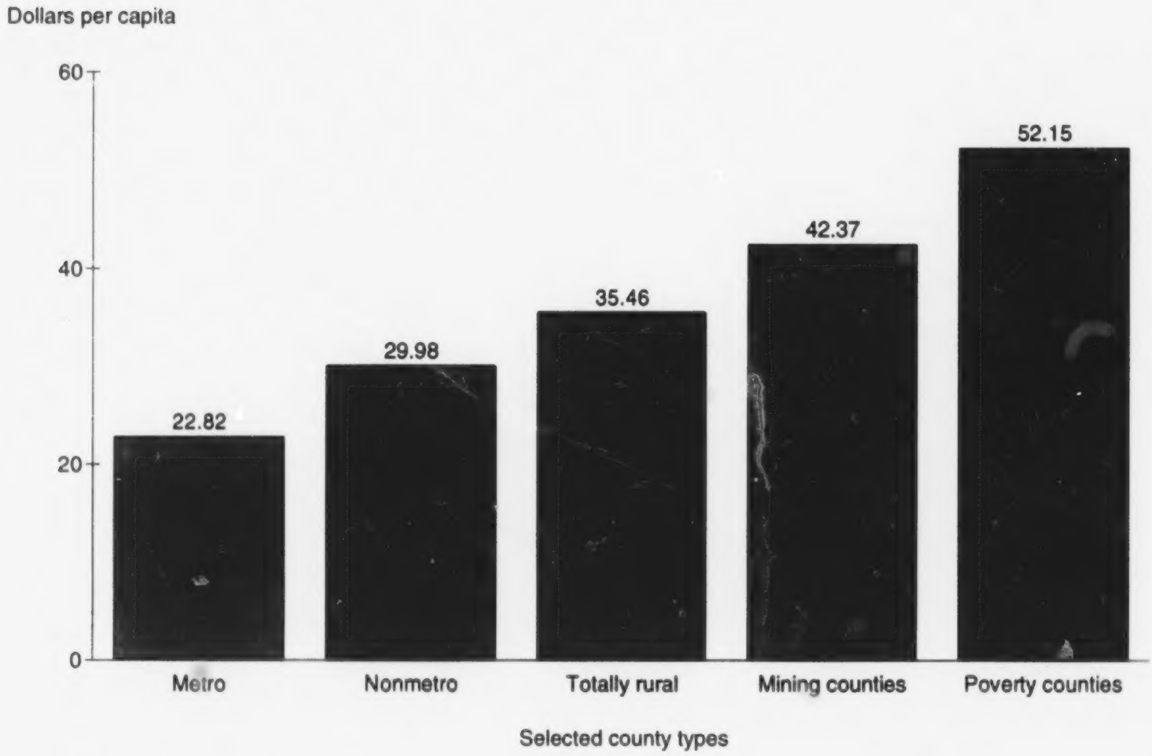
[1] Budget authority is used for all programs except the loan programs, which use projected loan levels (program level).

Source: Budget of the United States, fiscal year 1998.

Figure 1

Per capita Title I education aid for disadvantaged students, fiscal year 1995

Rapidly growing program disproportionally benefits poverty, mining, and totally rural counties



2000 program (which helps schools evaluate performance based on national goals) and the bilingual education programs increased by about 40 percent. These, and most other education programs, are not particularly targeted to distressed populations, so all rural (and urban) areas get increased education funding.

Some Training and Employment Programs Get Significant Funding Increases

Funding for training and employment programs is also increasing substantially in 1997, largely in response to the perceived need for help in adjusting to welfare reform. Much of the increase is for training and employment services authorized by the Job Training Partnership Act (JTPA), which receive a total of $0.5 billion in new funds in 1997, a 14-percent increase from 1996 (table 2). The largest JTPA programs are summer youth employment and training, adult training, the Job Corps (which helps train disadvantaged young students), and dislocated worker assistance. Of these, the summer youth program, which helps find jobs for severely disadvantaged youths, receives the most significant increase in funding, up 39 percent from 1996. These programs, administered by the Department of Labor, are targeted to places with high levels of unemployment and poverty.

The community service job program for older Americans (targeted to low-income unemployed elderly) is another large Labor Department program getting a rapid increase in funding, up 24 percent. The Federal-State Employment Service's funding has increased

Table 2

Selected training and employment programs

Many training and education programs benefit from substantial funding growth

Program	Funding level by fiscal year[1]			Rural areas most affected by the program
	1996 actual	1997 estimate	Increase	
	Billion dollars		Percent	
Total training and employment services (JTPA)[2]	4.15	4.65	14	Places with high unemployment and poverty.
Summer youth	.63	.87	39	Same as above.
Adult training	.85	.90	5	Same as above.
Job Corps	1.11	1.14	3	Same as above.
Dislocated worker	1.12	1.25	12	Places with high unemployment.
Federal-State employment service	1.19	1.25	5	Farming and Western States.
Older Americans employment	.37	.46	24	Predominately urban States.
Adult education	.26	.35	36	Poverty and Southern States.
Vocational education	1.09	1.14	5	Poverty and farming States.
Rehabilitation service	2.46	2.51	2	Poverty, farming, Southern, and Midwest States.

[1] Budget authority is used, except for individual JTPA programs, whose funding levels are expressed in obligations.

[2] Job Training Partnership Act programs include summer youth, adult training, Job Corps, dislocated worker, and other programs.

Source: Budget of the United States, fiscal year 1998.

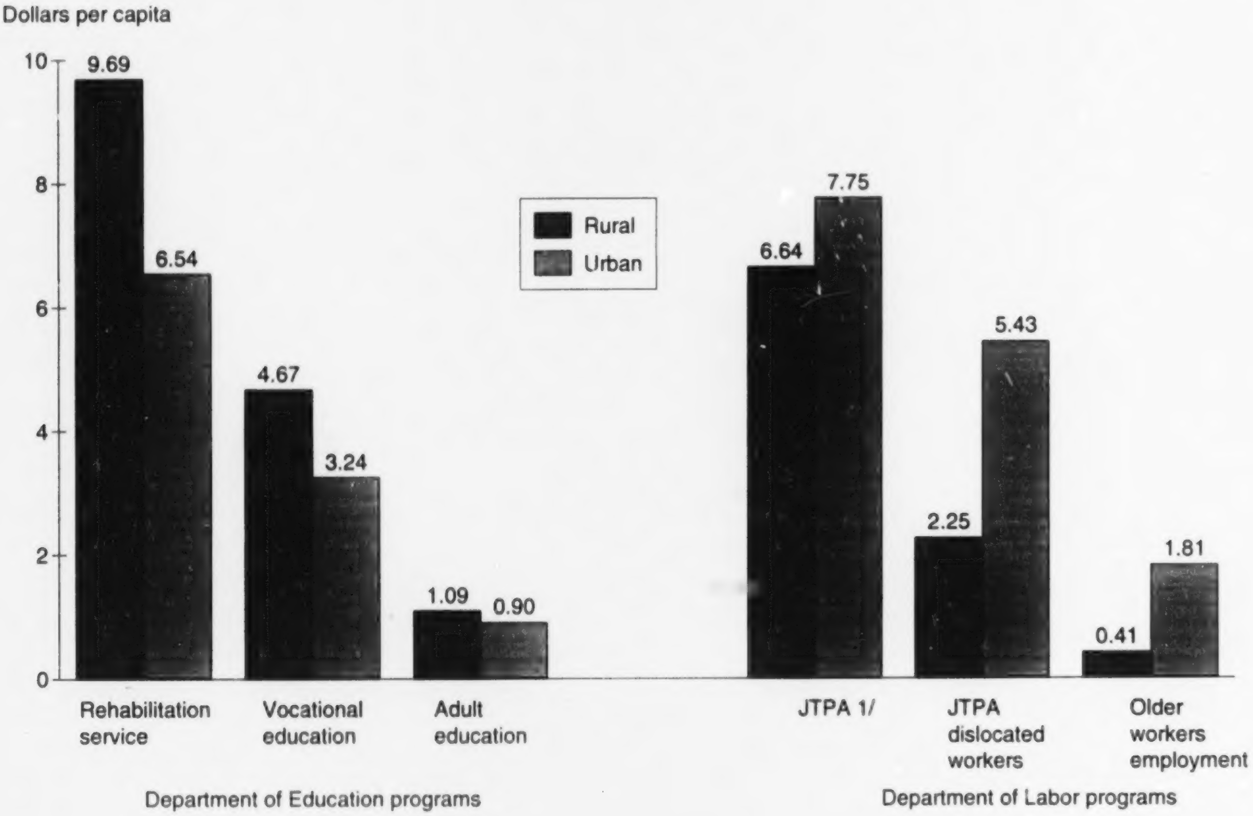
only marginally, but it will be enhanced through the development of a labor market information system and an expanded job bank.

Although the Labor Department's training and employment programs should help both urban and rural areas, urban States tend to benefit more from these programs than rural States (fig. 2). In contrast, rural States tend to benefit more from the Education Department's training programs, which include adult education, vocational education, and the rehabilitation service. Adult education funding, particularly important for poor rural areas in the South, will grow by 36 percent in 1997. Vocational education and rehabilitation aid, more important for farming areas in the South and Midwest, is growing more slowly.

Figure 2

Per capita employment and training programs, fiscal year 1995

Education's programs favor rural States, while Labor's programs favor urban States



1/ Job Training Partnership Program (excluding Dislocated Worker Program).
Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Most Environmental Protection and Natural Resource Programs Increased

The Environmental Protection Agency (EPA) is getting 13 percent more money in 1997 for its operating programs that pay for research and enforcement (table 3). This significant increase in funding should help EPA improve its regulations (see article on regulatory changes) and provide more support to States and localities in their efforts to monitor the environment and develop solutions to problems. Funding for EPA's State, local, and tribal grants, which help fund State and local environmental activities, has also increased, but by a lesser amount.

EPA's Superfund program is also increasing in 1997. This program, which includes the Hazardous Substance Response Trust Fund activities and Superfund grants to States, cleans up toxic waste sites left from industrial activities. Many of these waste sites are in rural areas in the Southwest and the northern Rockies and West Virginia, where mining and energy industries are located, and in the Midwest and Eastern States with river or coastal industrial sites requiring attention (fig. 3).

Table 3

Selected environmental protection and natural resource programs

Funding increases modestly for most of these programs

Program	Funding level by fiscal year[1] 1996 actual	1997 estimate	Increase	Rural areas most affected by the program
	Billion dollars		Percent	
EPA Operating Program	2.74	3.11	13	Environmentally vulnerable places.
EPA State, Local and Tribal Grants	.64	.67	4	Same as above.
EPA Superfund Toxic Waste Cleanup[2]	1.31	1.39	6	Mining and energy areas along coasts or rivers.
DOI National Park Service Operating Program	1.08	1.15	7	Rural areas near National Parks.
DOI Bureau of Land Management Operating Program	.56	.57	1	Rural areas near Federal lands.
DOI Fish and Wildlife Operating Program	.51	.53	3	Recreation areas.
USDA Forest Service National Forest System	1.28	1.27	0[3]	Recreation and timber-dependent areas.
USDA Conservation Reserve Program	1.73	1.86	8	Agricultural areas.

[1] Budget authority is used, except for the superfund program, which uses obligations.

[2] Includes Hazardous Substance Response Trust Fund and Superfund grants to States.

[3] Declined less than 0.5 percent.

Source: Budget of the United States, fiscal year 1998.

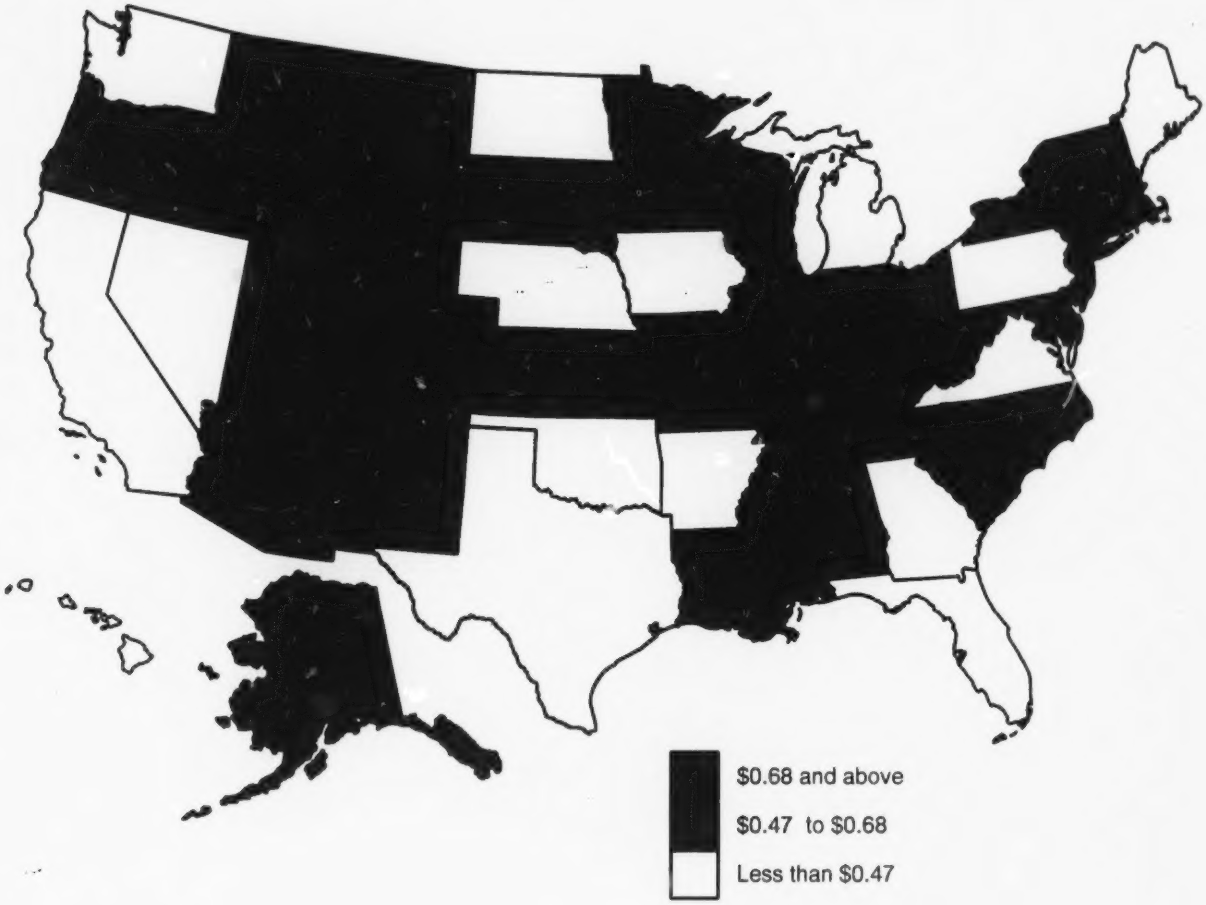
Rural areas may particularly benefit from natural resource conservation and management programs, which are particularly important for tourism, recreation, timber, mining, and other natural resource-related industries. These programs get mostly modest funding increases in 1997. Included are the Department of the Interior's operating programs for the Park Service, the Bureau of Land Management, and the Fish and Wildlife Service, which manage and maintain much of the Federal land. USDA's National Forest System funds remained steady.

USDA's Conservation Reserve Program (CRP) received a moderate, 8-percent funding increase. This program contracts with agricultural producers to retire land from production for 10 to 15 years in order to reduce erosion, protect water quality, and enhance wildlife habitat. As contracts expire on more than 21 million CRP acres, new program rules allow USDA to replace expiring contracts with new contracts on more environmentally sensitive acres in early spring 1997. However, the geographic impact of the program is not expected to change significantly. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Figure 3

Per capita Superfund cleanup aid, fiscal year 1995

Superfund cleanup aid has been most important in the Rocky Mountains, New England, and Mississippi River States


$0.68 and above
$0.47 to $0.68
Less than $0.47

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Welfare Reform Legislation Poses Opportunities and Challenges for Rural America

Welfare reform legislation enacted in 1996 devolves responsibility for providing assistance to needy families and children from Federal to State governments through Federal block grants. It shifts the fundamental intent of public welfare away from providing cash assistance to moving families from welfare to work. The new legislation may foster more productive communities as families leave welfare for work. It also presents some rural States and communities with formidable challenges.

The Personal Responsibility and Work Opportunity Reconciliation Act (PL104-193), signed into law in August 1996, dramatically overhauls the national system of public welfare in operation since the 1930's. Enactment of the new law follows years of national debate and many past welfare reform efforts; recent actions, according to the Institute for Research on Poverty, include 6 major House bills, 11 major Senate bills, 13 minor bills, 2 Presidential vetoes, and 43 State waivers.

With welfare reform, responsibility for providing assistance to needy families and children devolves from Federal to State governments through a system of individually tailored State programs funded by Federal block grants. At the same time, the new law shifts the fundamental intent of public aid away from providing cash assistance to helping families transition from welfare to work. How different States and local communities respond to the challenges and opportunities presented by the welfare reform law depends on many factors, including past programmatic experiences, the characteristics of their low-income populations, and prevailing economic conditions in the State and Nation. For example, States dominated by rural areas and large rural populations or communities face different challenges than States dominated by large urban centers.

Provisions Affect Several Low-Income Programs

PL104-193 makes important changes in several major low-income programs and lesser changes in other programs. Programs affected most by the law accounted for over $190 billion of Federal outlays in 1996—about one-tenth of Federal welfare expenditures (fig. 1).

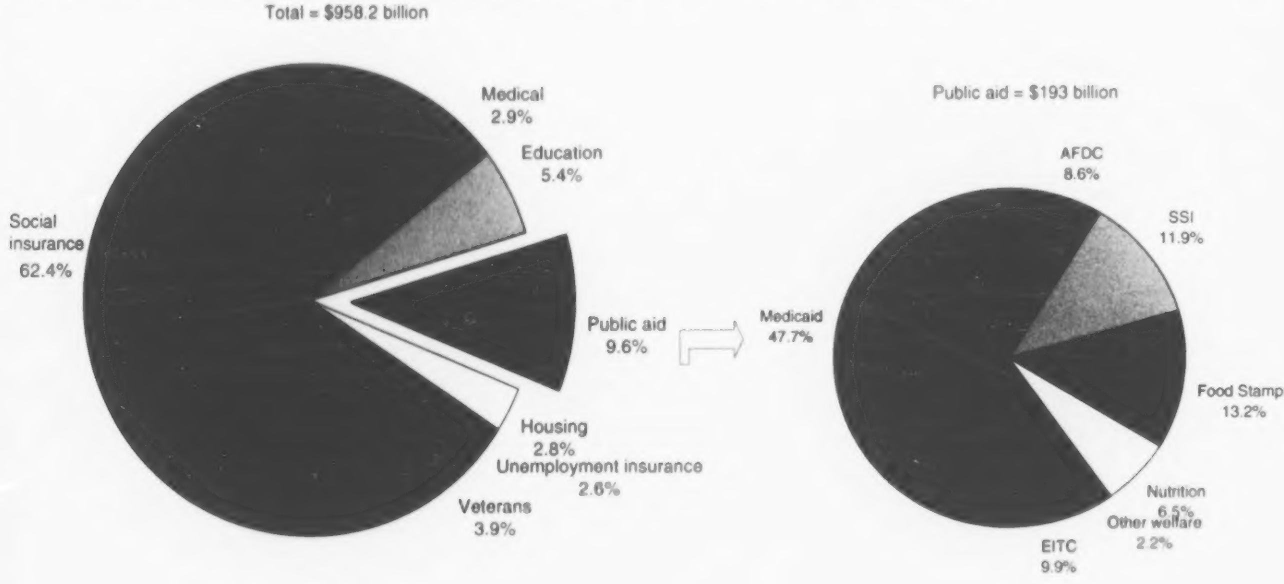
One of the most important of the act's many complex provisions replaces the 61-year-old Federal welfare program, Aid to Families with Dependent Children (AFDC), with Temporary Assistance for Needy Families (TANF), a system of State-controlled low-income assistance programs funded by Federal block grants capped at mid-1994 funding levels through 2002 (see box). While giving States considerable flexibility and autonomy for designing and operating their own State plans, TANF provisions limit the total lifetime maximum for receiving Federal welfare benefits to 60 months, with hardship exemptions, and specify parental work requirements. State plans must indicate how States intend to meet the requirement that able-bodied parents must engage in work activities after receiving benefits for a maximum of 24 months. To avoid reductions in their Federal block grants, States must act to increase the percentage of their family caseloads participating in approved work activities from minimum rates of 25 percent for all families and 75 percent for two-parent families in 1997, rising to 50 percent (all families) and 90 percent (two-parent families) by 2002. Other provisions provide additional funds for child care and health insurance and call for State actions to reduce teen and out-of-wedlock births.

The act also substantially reforms other low-income programs. Provisions tightening eligibility criteria for the Supplemental Security Income (SSI) disability program restrict many formerly eligible children under age 18 from receiving benefits. Provisions affecting the Food Stamp Program limit benefits for childless able-bodied adults unless they are working. Other changes altering the criteria for determining Food Stamp benefits will result in an overall reduction in benefits in the future. Provisions involving aliens restrict most legal aliens (with a few special exceptions) from receiving SSI and Food Stamp benefits until they have either worked for 10 years or become citizens. States have the option whether or not to provide TANF and Medicaid benefits to legal aliens already in the country. New legal aliens are ineligible for TANF and Medicaid Federal benefits until they have been in the country for 5 years, although States may use State funds to provide such benefits. Additional provisions pertain to child nutrition programs, Medicaid, foster care, social sup-

Figure 1

Federal spending for social welfare programs, 1996

Programs mainly affected by PL104-193 accounted for about one-tenth of Federal social welfare spending



Source: Calculated by ERS using data from the Budget of the United States Government, fiscal year 1998.

port services, earned income tax credit (EITC), and Social Security benefits for prison inmates.

Beginning in 1997, States must maintain State spending levels for TANF benefits and administration, emergency assistance, JOBS, and selected child care programs at 80 percent of their 1994 levels or risk dollar-for-dollar shortfall reductions in the following year. States with high unemployment rates and/or large increases in Food Stamp caseloads may qualify for supplemental payments worth up to 20 percent of their block grant allocations. Beginning in 1998, more modest Federal supplements will be available to qualifying States with rapid population growth and a history of low AFDC spending levels, States with high-performing TANF programs, and the top five States with the largest declines in out-of-wedlock births.

SSI and Food Assistance Programs Account for More Than 80 Percent of Federal Public Welfare Spending Reductions

Estimated budgetary impacts of the new law on Federal public welfare spending indicate a decline of about $54 billion over the 6-year period, 1997-2002 (table 1). Because the core Federal funding for TANF is a sum fixed at mid-1994 funding levels through fiscal year 2002 (about $16.5 billion annually), projected overall Federal savings realized from the new cash assistance programs are negligible. According to a recently released report by the Urban Institute, annual projected spending on non-Medicaid public welfare between 1998 and 2002 amounts to less than 2 percent of Gross Domestic Product (GDP). New child-care block grants, coupled with additional spending for child support enforcement, total $13.2 billion, a $3.9-billion increase over the amount that would have been spent under the old law. The bulk (over 80 percent) of the spending reductions derives from reductions in SSI ($22.7 billion) and Food Stamp programs ($23.3 billion). Of these reductions, restrictions involving alien benefits make up $13.2 billion and $3.7 billion of SSI and Food Stamps savings, respectively, plus an additional $4.1-billion savings in projected Medicaid benefits.

Key Provisions: The Personal Responsibility and Work Opportunity Reconciliation Act

Establishes Temporary Assistance for Needy Families (TANF) that:

- —Replaces former entitlement programs with Federal block grants
- —Devolves authority and responsibility for welfare programs from Federal to State government
- —Emphasizes moving from welfare to work through time limits and work requirements

Changes eligibility standards for Supplemental Security Income (SSI) child disability benefits

- —Restricts certain formerly eligible children from receiving benefits
- —Changes eligibility rules for new applicants and eligibility redetermination

Requires States to enforce a strong child support program for collection of child support payments

Restricts aliens' eligibility for welfare and other public benefits

- —Denies illegal aliens most public benefits, except emergency medical services
- —Restricts most legal aliens from receiving Food Stamps and SSI benefits until they become citizens or work for at least 10 years
- —Allows States the option of providing Federal cash assistance to legal aliens already in the country
- —Restricts most new legal aliens from receiving Federal cash assistance for 5 years
- —Allows States the option of using State funds to provide cash assistance to nonqualifying aliens

Provides resources for foster care data systems and national child welfare study

Establishes a block grant to States to provide child care for working parents

Alters eligibility criteria and benefits for child nutrition programs

- —Modifies reimbursement rates
- —Makes families (including aliens) that are eligible for free public education also eligible for school meal benefits

Tightens national standards for Food Stamps and Commodity Distribution

- —Institutes an across-the-board reduction in benefits
- —Caps standard deduction at fiscal year 1995 level
- —Limits receipt of benefits to 3 months in every 3 years by childless able-bodied adults age 18-50 unless working or in training

It is too soon to tell how much of the projected Federal savings will actually materialize. As of this writing, media sources report that 40 States have requested or received 1-year exemptions from the provision scheduled to begin this spring that cuts off Food Stamp benefits to unemployed able-bodied childless adults who live in high-unemployment areas. If many such exemptions are granted, the projected savings from the Food Stamp program will be less than estimated.

Recent Drops in Caseloads Create Favorable Funding Picture in Some States

The immediate goal facing all States is the development and submission of a State TANF plan for certification from the Department of Health and Human Services by no later than July 1, 1997. Certification triggers the release of Federal funds under the new block grant program. Until then, States will continue to operate under the old AFDC funding rules. As of February 24, 1997, 41 States had submitted TANF proposals, of which 38 had been certified by HHS and 3 were pending certification.

The number of States that have already submitted plans clearly suggests that many States and communities are hopeful that welfare reform, along with a possible increase in funds, will help speed up the transition from welfare to work and result in more productive communities with rising tax bases, better public services, and industrial growth. While this may prove to be the case in traditionally high welfare-benefit States, where the welfare population is distributed among communities with stable economies, strong local tax bases, and well-developed social service delivery systems, it may prove to be less true for many predominantly rural States and rural areas in other States.

According to HHS, estimated block grants for fiscal year 1997 will vary from $3.7 billion in California to $21.8 million in Wyoming. Under the previous AFDC law, a State's Federal funds were determined by a matching formula based on State spending. State funds were matched 50 cents on the dollar for more affluent States, while less affluent States received an even higher match. Under TANF, Federal block grants to States are tied to the Federal share of State funding levels in either 1994, 1995, or the 1992-94 average (whichever is higher). Furthermore, States choosing to divert State funds toward benefits to groups not covered by the law, such as nonqualifying aliens, will receive no additional Federal funds.

Table 1

Estimated Federal budget effects of PL 104-193, 1997-2002

Food Stamp Program and SSI account for over 80 percent of savings over 6 years

Program	Pre-law projected spending	Post-law projected spending	Change	Percent change
	Billion dollars			Percent
Family support	112.5	112.4	-0.1	-0.1
Child care	9.3	13.2	+3.9	+41.9
Food Stamps	190.5	167.2	-23.3[1]	-12.2
SSI	203.5	180.8	-22.7[1]	-11.2
Medicaid	803.0	798.9	-4.1[1]	-.5
Child nutrition[2]	61.9	59.0	-2.9	-4.7
OASDI	2,484.4	2,484.3	-.1	-0.0
Other[3]	182.6	177.7	-4.9	-2.7
Total	4,047.7	3,993.5	-54.2	-1.3

[1] Includes $23.7 billion of projected savings from restricting benefits to aliens.

[2] Child nutrition includes programs authorized under National School Lunch and Child Nutrition Acts.

[3] Other includes social services, foster care, maternal and child care, and Earned Income Tax Credit.

Source: Compiled by ERS from Congressional Budget Office report to OMB, August 9, 1996.

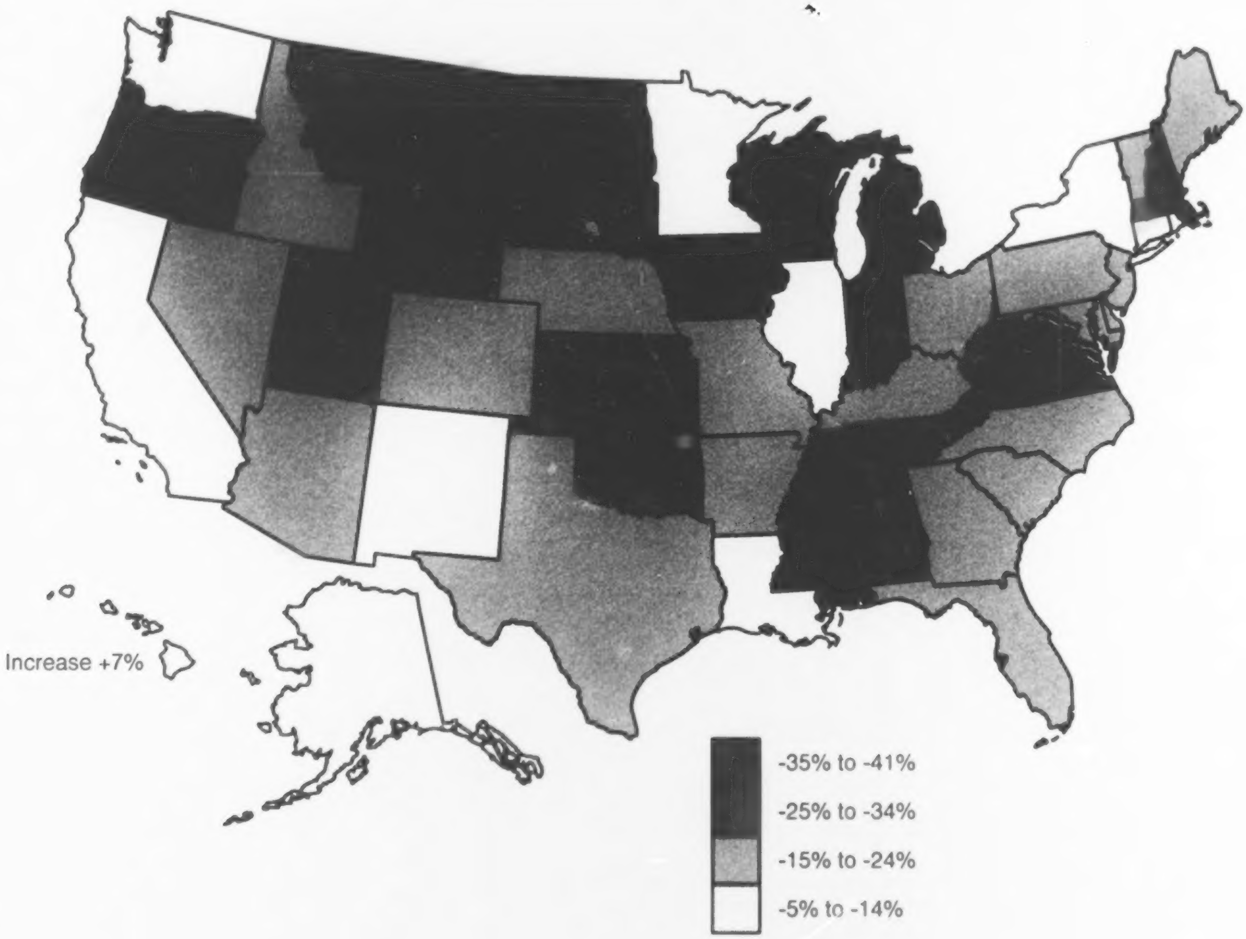
The upside for States is that recipient caseloads have undergone a substantial decline in the last 3 years, partly influenced by the operation of State waiver demonstration projects in many States and a strong national economy. Since 1994, national welfare rolls have dropped by 3 million people. All States, except Hawaii, experienced at least a 5-percent drop in welfare recipients from 1994 to 1996, and 20 States realized a 25- to 41-percent decline (fig. 2). Thus, former high-benefit States, including some with well-developed waiver demonstrations already in place, will reap large windfalls because they have to cover fewer recipients with their block grants. These gains, coupled with a potential 25-percent savings on State funds, give States the option of using the surplus resources to fund other programs or to provide tax relief.

The downside to block grants is that some traditionally low-benefit States with disproportionately large rural and/or minority populations and historically high poverty rates will

Figure 2

Change in AFDC recipiency by State, 1994-96

Number of recipients declined by at least 5 percent in every State but Hawaii



Source: Prepared by ERS using data from the Department of Health and Human Services.

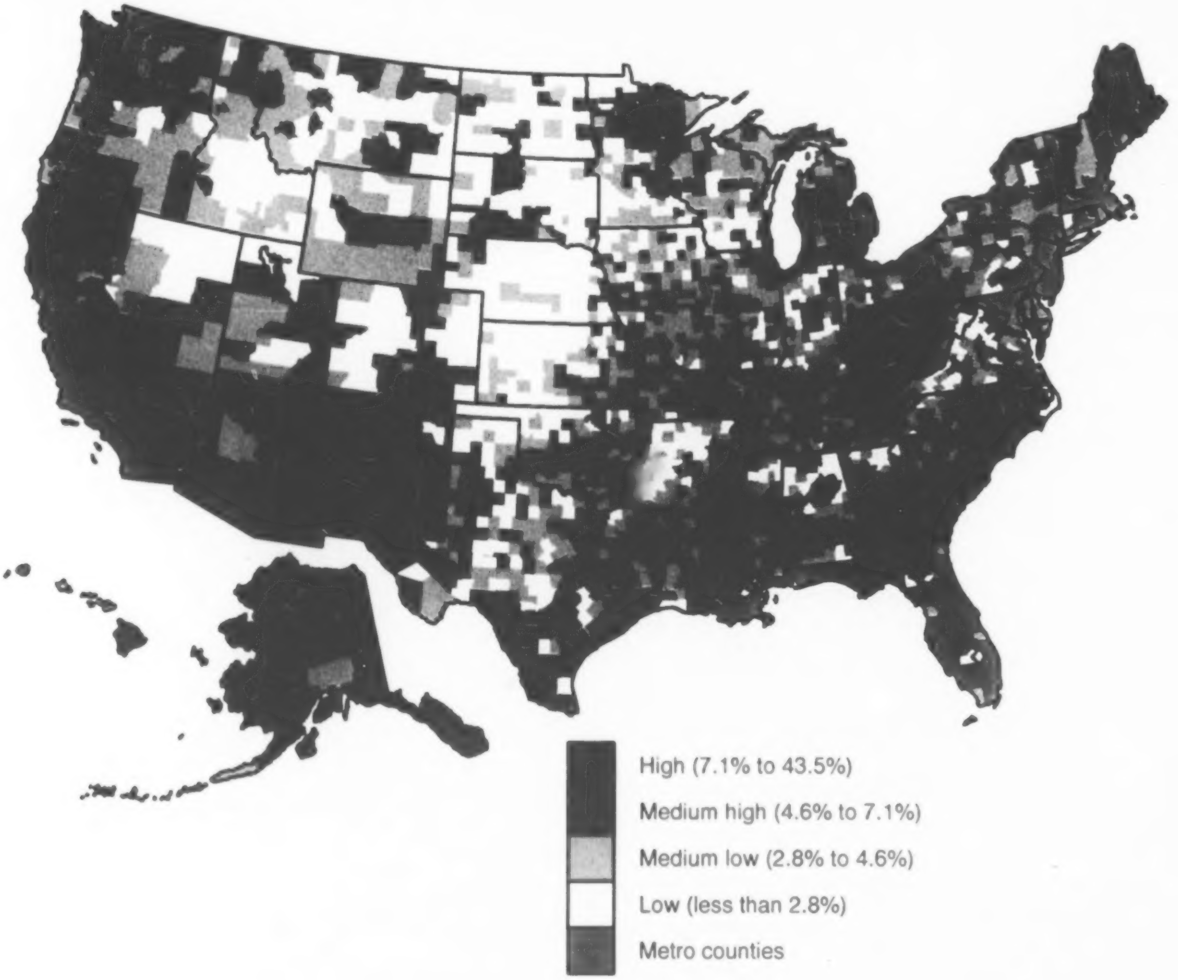
receive fewer Federal dollars than other States to deal with unusually high welfare dependency rates. As of 1993, 18 mostly Southern States paying average monthly benefits of less than $300 per family accounted for 50 percent of the rural population and 60 percent of the rural poor. Fortunately, some of these States may qualify eventually for supplemental funds under the new law.

Rural counties with high rates of family welfare dependency often have high concentrations of minorities (Native Americans, Hispanics, African Americans) and/or historically high-poverty populations (fig. 3). These counties are disproportionately located in Southern States, including the Carolinas, Georgia, the northern Florida panhandle, parts of Alabama, Mississippi, Louisiana, and Arkansas, much of Appalachia, and areas of the

Figure 3

Family dependency on AFDC for rural counties, 1994*

Three out of every five high welfare-dependency counties are persistent-poverty counties



* Percent of families receiving AFDC benefits.
Source: Estimated by ERS using data from 1990 Census, Bureau of Economic Analysis, and Social Security Administration.

Missouri Ozarks as well as in the Southwest, Northwest, the Dakotas, New England and the Great Lakes region. Of the 775 counties classified as high dependency in 1994, 586 are nonmetro (rural) counties. Nearly 60 percent of these rural high-dependency counties have had poverty rates in excess of 20 percent spanning several decades, and 56 percent are remote counties located away from urban centers.

Rural Leaders Face Unique Challenges in Moving Families From Welfare to Work

A review of State plans for 16 predominantly rural States indicates that several will require welfare parents to enter the labor market sooner than required by Federal guidelines (see box). In a few States, parents will be required to work in community service jobs after 2 months of receiving benefits. Yet, rural county jurisdictions within these States have disproportionately high rates of welfare dependency, poverty, and unemployment, and are remotely located from urban centers (table 2).

Rural State and local leaders face many challenges in implementing State TANF plans that will effectively move families from welfare to work in their States. These challenges (elaborated below) include (1) creating enough new full-time jobs in the local labor market to absorb new unemployed and involuntary part-time welfare entrants without displacing nonwelfare workers; (2) providing job training and education that rural welfare parents need to obtain and retain jobs; (3) helping welfare families find jobs that provide a livable income; and (4) providing transportation to jobs in places that lack public transportation and sufficient access to safe and affordable child care.

Finding available jobs for increasing proportions of a State's welfare parents in the next few years without displacing nonwelfare workers may be the greatest challenge that rural States face, because of the limited capacity of rural labor markets to absorb large numbers of new workers into entry-level jobs commensurate with the education and work experience of many welfare parents. This is especially true for rural communities with high welfare dependency, and unemployment and poverty rates. In 1994, 60 percent of the 586 rural counties that were classified as highly welfare-dependent were also high-unemployment counties (fig. 4). Many of these same highly welfare-dependent counties have had poverty rates in excess of 20 percent over several decades. Thus, welfare job seekers will often have to compete with unemployed workers not on welfare for available jobs. However, some rural States with unusually high unemployment rates may apply for supplemental funds up to 20 percent of their annual block grants. Furthermore, some States providing cash subsidies to employers who hire welfare recipients have built safe-

State Plans Have Been Submitted by 16 of 22 Predominantly Rural States

To date, TANF State plans have been submitted and certified for 16 of 22 predominantly rural States. These States either have large rural populations and/or have a considerable share of county jurisdictions that are classified as rural nonadjacent (see table 2 for list and definition). Proposals have not been submitted by the remaining six States. The estimated amounts of Federal TANF block grants for fiscal year 1997 vary from $775.4 million in Michigan to $21.8 million in Wyoming. This translates to annual amounts per 1994 family ranging from a high of $5,000 in Alaska to a low of $1,559 in Mississippi (table 2).

Eleven of the 16 State plans indicate that they will continue to work under waiver demonstration projects already in effect, and 2 will require welfare parents to work in community service activities after 2 months of receiving benefits. All but one of the States will offer eligible interstate migrants the same benefits as instate recipients. Three States will use State funds to provide benefits for nonqualifying aliens. The maximum lifetime limits for receiving cash assistance fall below the Federal guideline of 60 months in seven States; three of these will provide benefits for only 24 months out of every 60 months. Five States have set work requirements more stringent than the Federal guidelines. Only two States plan to implement TANF uniformly across all jurisdictions.

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Table 2

Selected characteristics of predominantly rural States[1]

All but three States have more than one-half of their counties located in remote areas

State	AFDC monthly benefit, 1993[2]	Estimated 1997 block grant in millions	Annual 1994 family benefit, 1997	Rural counties: Mean welfare dependency rate, 1994	Rural counties: Mean unemployment rate, 1994	Rural counties: Persistent poverty, 1990[3]	Rural counties: Nonadjacent counties, 1994
	Dollars			Percent			
Alaska	High	63.6	5,000	12.91	9.51	23.0	91.7
Arkansas	Low	56.7	2,205	4.38	6.36	48.4	54.7
Idaho	Medium	31.9	3,635	2.76	6.65	2.4	79.5
Iowa*	Medium	130.1	3,292	3.85	4.00	0.0	54.5
Kansas*	Medium	101.9	3,418	2.87	4.44	0.0	73.3
Kentucky*	Low	181.3	2,291	8.96	6.84	55.1	52.5
Maine*	High	78.1	3,447	6.66	8.37	0.0	31.3
Michigan*	High	775.4	3,525	5.93	9.18	1.7	50.6
Minnesota	High	266.4	4,323	3.61	5.70	2.9	50.6
Mississippi*	Low	86.8	1,559	9.31	8.29	82.7	68.3
Missouri*	Low	214.6	2,329	5.91	6.03	30.0	51.3
Montana*	Medium	45.5	3,840	4.27	5.10	5.6	78.6
Nebraska*	Medium	58.0	3,704	1.70	2.84	2.3	80.6
New Hampshire*	High	38.5	3,359	3.86	4.17	0.0	30.0
New Mexico	Medium	126.1	3,696	8.94	8.47	48.2	57.6
North Carolina*	Low	302.2	2,314	7.80	6.26	29.2	26.0
North Dakota	Medium	25.9	4,551	2.65	4.29	14.3	71.7
Oregon*	Medium	167.9	4,036	4.35	7.45	0.0	52.8
South Dakota*	Low	21.9	3,223	4.71	4.39	27.0	83.3
Vermont*	High	47.4	4,799	6.69	5.53	0.0	50.0
West Virginia*	Low	110.2	2,728	8.51	11.34	25.6	52.7
Wyoming*	Medium	21.8	3,855	3.54	5.15	0.0	87.0
U.S. total	———	16,389.0	3,256	5.62	6.54	23.5	56.8

[1] Predominantly rural States have less than 45 percent of 1995 population residing in urban portions of metro areas and/or other States (nonurban) with at least one-half of counties classified as nonmetro nonadjacent counties (see appendix A). States indicated with an * have TANF State Plans certified as of February 24, 1997.

[2] Low-benefit States have benefits less than $300, medium-benefit States have benefits between $300 and $400, and high-benefit States have benefits over $400.

[3] See appendix A.

Sources: Calculated by ERS using data from the Bureau of Economic Analysis, Bureau of the Census, Bureau of Labor Statistics, Social Security Administration, and Department of Health and Human Services.

guards in their State plans to ensure that welfare workers will not displace workers already on the job.

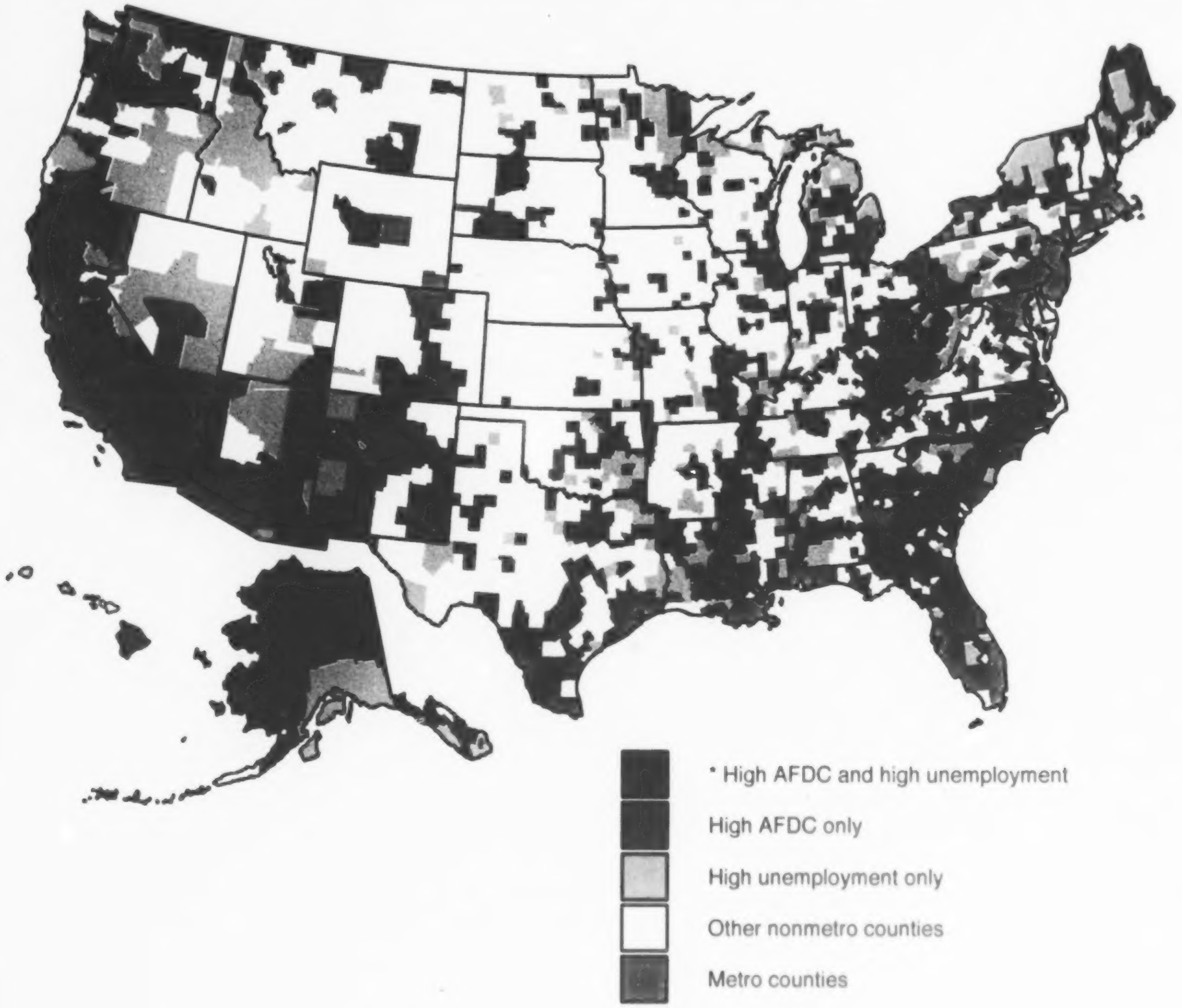
Even if rural States find innovative ways to create more jobs, these jobs may not be accessible to many welfare parents with low education levels and little work experience without remedial education and training. In 1996, 35 percent of rural welfare parents lacked a high school education. Furthermore, preparing many welfare parents to enter and remain in the work world requires developing the appropriate life skills and workplace habits needed to sustain employment. Such training is expensive and time-consuming, and may not be available in many rural communities. Most welfare recipients face another hurdle. Well over 80 percent of welfare parents are single mothers who will have to cope simultaneously with the demands of being a parent and a breadwinner.

The gains of promoting work among welfare recipients will be best realized if work lifts families out of poverty. Declining real wages over the past 15 years have left many rural families poor or nearly poor. In 1995, nearly 60 percent of rural poor families had either a

Figure 4

Overlap of rural counties by AFDC dependency and unemployment rates, 1994

Over 60 percent of high welfare-dependent counties have high unemployment rates



* High equals top 25 percent of U.S. counties.
Source: Estimated by ERS using data from 1990 Census, Bureau of Labor Statistics, Bureau of Economic Analysis, and Social Security Administration.

head or spouse that worked some during the year, and 24 percent of rural poor families had either a head or spouse that worked full-time year-round. Although the metro/nonmetro poverty gap has narrowed greatly in recent years, 39 percent of rural families had near-poverty incomes (under 200 percent of the poverty line) in 1995, compared with 29 percent of urban families. The end goal of achieving self-sufficiency requires helping welfare parents find and retain jobs that pay decent wages as well as increasing the share of children who live in two-parent worker families.

Community leaders must also find ways to overcome the lack of public transportation from home to work in most rural communities. Public transportation is important because rural welfare families do not generally own cars and often live in remote locations far from work opportunities. (Some States have prohibited welfare recipients from owning cars in the past.)

Another major rural concern is helping parents gain access to adequate child care. Almost two-thirds of rural welfare families had at least one child under age 6 in 1996. Yet, the availability of day-care centers in many small rural communities is limited, or nonexistent, causing welfare parents to rely on families, friends, and neighbors for child care.

A final challenge for all States is to incorporate ways to address the unique needs of rural areas and rural people (especially in very remote locations) into their State plans. If State plans do not reflect rural concerns, there is a real chance that rural areas will be overlooked, especially in States that do not intend to implement all aspects of welfare reform uniformly across jurisdictions. *[Peggy J. Cook, 202-219-0095, pross@econ.ag.gov, and Elizabeth M. Dagata, 202-219-0536, edagata@econ.ag.gov]*

Rural Workers Will Benefit More Than Urban Workers From Increase in Minimum Wage

The minimum wage increased to $4.75 in October 1996 and will rise to $5.15 in September 1997. A larger share of rural than urban workers will benefit from this increase. The greatest impact will be in the South, where poverty rates are high and industries are characterized by low wages.

In August 1996, President Clinton signed into law the Small Business Job Protection Act, which increased the minimum wage for many low-wage workers. On October 1, 1996, the minimum wage for most workers increased from $4.25 to $4.75 an hour and will increase again to $5.15 an hour on September 1, 1997. This legislation is an effort to improve the incomes of low- and lower middle-income workers whose wages have failed to keep pace with the cost of living. The prevalence of low-wage jobs in rural areas ensures that a larger share of rural than urban workers will be affected by this legislation.

Since its introduction in 1938, the minimum wage has been increased 18 times to keep pace with inflation. This recent increase marks the first rise in the minimum wage since April 1991. The U.S. Department of Labor estimates that over 80 million nonsupervisory employees in the private and government sectors are subject to minimum wage provisions under the Fair Labor Standards Act (FLSA), accounting for about 90 percent of the employed workforce. The minimum wage law excludes some groups from coverage, such as executive, administrative, and professional employees, employees of seasonal amusement and recreation establishments, and hired farmworkers employed on smaller farms. Also, establishments whose annual gross volume of sales is less than $500,000 are not required to pay the minimum wage to their employees.

The legislation provides special provisions for workers who receive tips. Their employers are required to pay a minimum wage of $2.13 an hour (one half of the previous $4.25 an hour minimum wage) and must provide more if the employees do not collect enough tips to earn the new minimum wage rate. Also, the law's "training wage" provisions hold the hourly rate at $4.25 for teenagers during the first 90 days of the job. In addition, the law provides tax breaks worth $5 billion over 10 years for small businesses to help ease the burden of paying the higher minimum wage.

Who Benefits From an Increased Minimum Wage?

According to the most recent data from the Current Population Survey (CPS) earnings file, an average of 2 million nonmetro workers, or 10.8 percent of the nonmetro wage and salary workforce 16 years and older, earned $4.25-$5.14 per hour between the fourth quarter of 1995 and the third quarter of 1996. These workers form the group most likely to be affected by the increase in the minimum wage. In contrast, less than 7 percent of metro workers fell within this earnings category. These data may overstate the number of both metro and nonmetro workers who will actually receive the minimum wage increase. In 1995, for example, over 800,000 workers received less than the Federal minimum wage. Some of these workers were in exempt jobs, while others were being paid less than the minimum wage in violation of the law. Also, as earnings levels continue to rise and the first increment of the minimum wage goes into effect, the number of workers benefiting from the minimum wage increase will likely fall until September 1997 when the last increase in the minimum wage becomes effective.

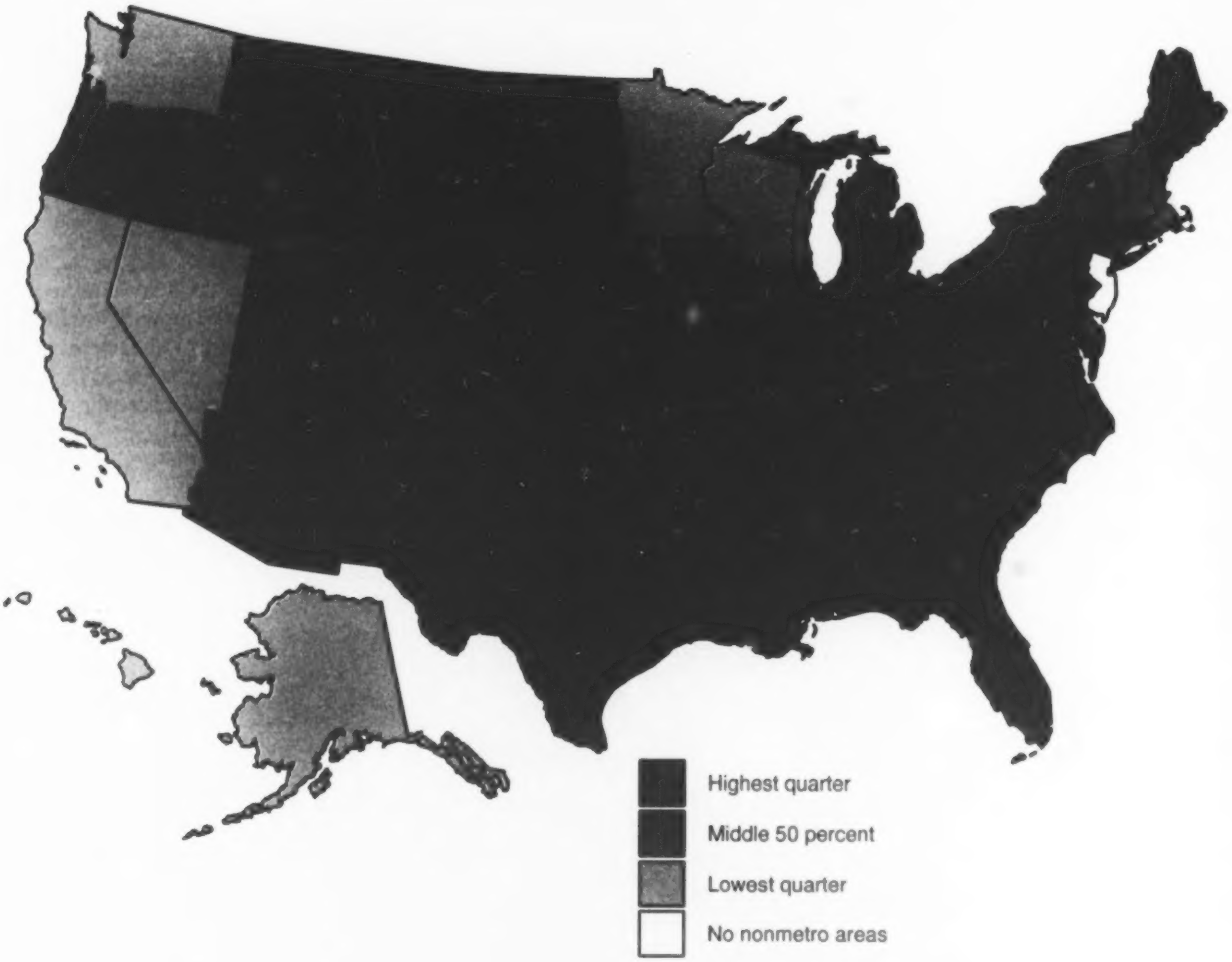
Some analysts have questioned the usefulness of increasing the minimum wage as an antipoverty mechanism, arguing that a large share of the workers who will receive the increase are part-time and teenage workers living in nonpoor families who have a weak attachment to the labor force. Our analysis suggests that the minimum wage increase in rural areas will primarily affect adults and single women. Most of the likely beneficiaries are women (64 percent), White (84 percent), over the age of 20 years (71 percent), and are widowed, divorced, separated, or never married (63 percent). However, Blacks, Hispanics, and teenagers are disproportionately represented among those likely to benefit. Also, a substantial portion of rural workers likely to be affected by the increase show strong attachment to the labor market. About half are full-time workers and an additional third work 20-35 hours per week. Poverty measures are not available from the CPS earnings file, but family income and size data suggest that a large portion of those who will benefit from the minimum-wage increase have low incomes. About 35 percent of minimum-wage workers live in families with incomes below $15,000.

The greatest impact of the minimum wage on rural workers will likely be felt in the South and Southwest (fig. 1). Louisiana (18 percent), New Mexico (17.4 percent), Arkansas (17.1 percent), and Mississippi (16.7 percent) had the highest proportion of nonmetro workers earning between $4.25 and $5.14 per hour. These States are generally characterized by high concentrations of lower paying jobs and relatively high poverty rates. In contrast, States least likely to be affected are concentrated in the West and Northeast. Alaska (3.6 percent), California (4.5 percent), Nevada (4.3 percent), and New Hampshire (5.1 percent) have the lowest proportion of workers likely to be affected by the new legislation. Several of the States with a low percentage of affected workers have State mini-

Figure 1

States with rural workers most likely to be affected by increase in minimum wage

The South has the highest proportion of rural workers earning $4.25-$5.14



Source: Calculated by ERS from CPS earnings file.

mum wages set higher than the Federal minimum wage and most have higher concentrations of better paying jobs.

Who Loses From the Increased Minimum Wage?

Economic theory suggests that a higher minimum wage will reduce employment opportunities for lower skilled workers and new labor force entrants as employers cut back jobs in response to higher labor costs. A number of recent studies have suggested that when the minimum wage is at especially low levels as it is today, the employment effects of a moderate increase are likely to be minimal. However, rural areas may experience more employment displacement than urban areas since the increased minimum wage affects a larger share of rural than of urban workers and typically would raise their wages by a larger amount. The increase in the minimum wage would affect rural employers in some industries more than others. Large shares of nonmetro workers in entertainment and recreational services (28 percent), retail trade (26 percent), personal services (23 percent), and agriculture, forestry, and fisheries (19 percent) earned between $4.25 and $5.14 an hour in 1995 (fig. 2). Labor costs in rural industries facing stiff global competition could be especially sensitive to increases in the minimum wage, and some job loss could occur.

The new legislation allows tax breaks aimed at small businesses to help ease the burden of paying the higher minimum wage, but the effectiveness of these measures remains to be seen. Also, while much of the minimum wage debate is about jobs, the larger effect on workers may be through a cut in hours. While a reduction in hours would lessen the economic benefits from the legislation, affected workers might still be better off with higher wages and fewer hours. About half of those nonmetro workers most likely to be affected by the increase were employed part-time.

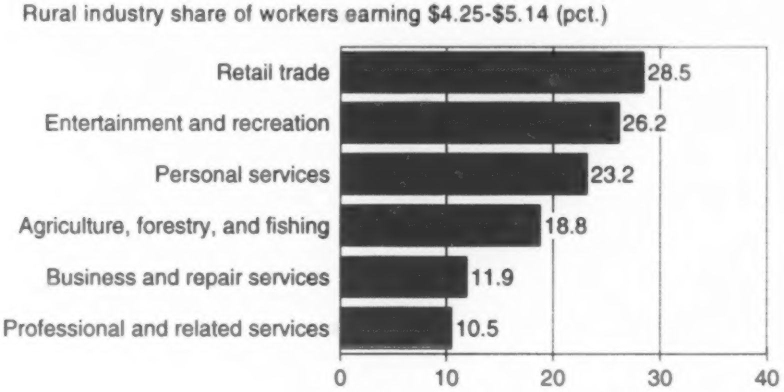
Purchasing Power of the 1970's Will Not Be Restored

Even with the recent increase, the purchasing power of the minimum wage has not kept pace with inflation and has fallen considerably over time (fig. 3). To restore the average purchasing power of the 1970's would require an increase to $5.75 an hour; restoration to the highest (1968) level would require an increase to $6.45 per hour. Also, changes in the minimum wage have not kept pace with changes in the wages of other workers in the economy. During the 1960's and 1970's, the minimum wage averaged between 45 and

Figure 2

Industry share of workers earning $4.25-$5.14

Some rural industries are more likely to be affected than others



Source: Calculated by ERS from CPS earnings file.

50 percent of the average hourly earnings of production or nonsupervisory workers in private nonfarm industries. By 1995, the minimum wage had declined to about 37 percent of the hourly average wage. With this new increase, the minimum wage will rise to 42 percent of our projected average nonsupervisory hourly wage in 1997, still below the traditional 45-50 percent share.

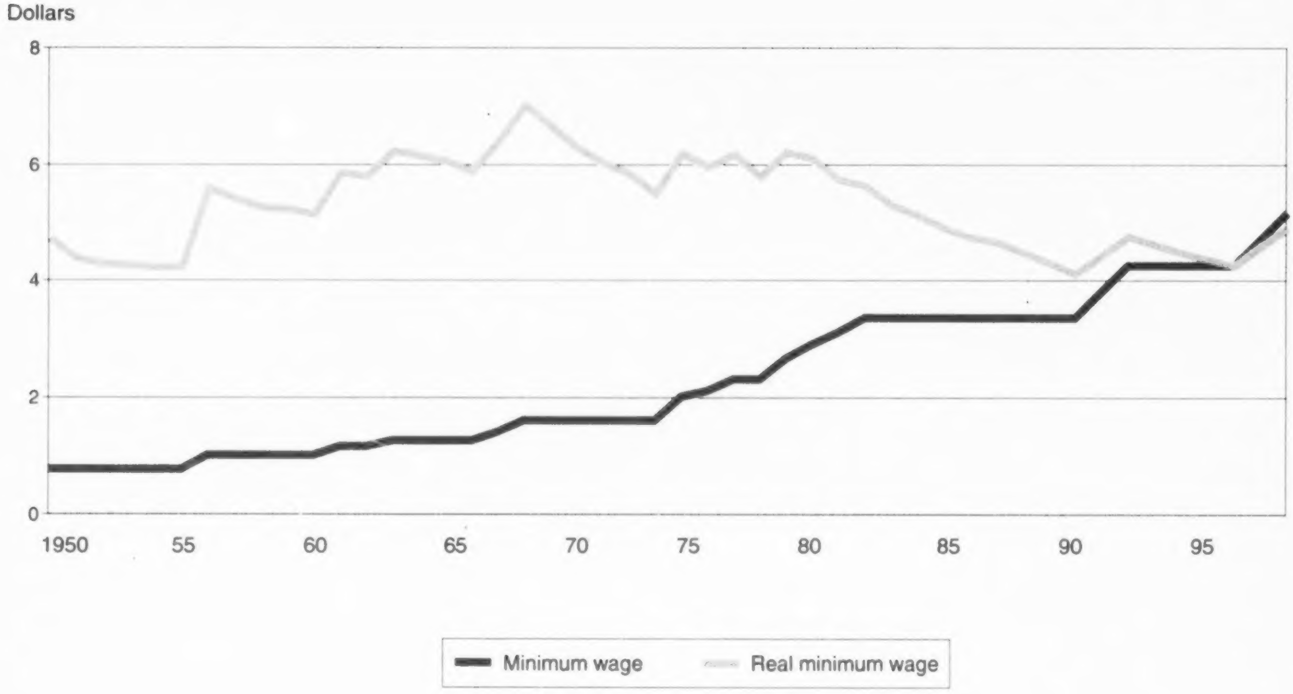
Minimum Wage Increase and the Earned Income Tax Credit Together Can Help Reduce Rural Poverty

A primary goal of minimum wage legislation is to guarantee that individuals making a major commitment to paid employment are able to provide their families with an adequate standard of living. During the 1960's and 1970's, the earnings of a person working full-time at the minimum wage for the entire year typically were enough to lift a family of three out of poverty without considering other sources of income. But, in 1997, a person working 40 hours per week for 52 weeks at the new minimum wage of $5.25 would earn $10,700 annually, about $2,000 per year short of the estimated poverty line for a three-person family. The minimum wage increase alone is likely to have little effect on reducing poverty. However, when combined with the earned income tax credit (EITC), the after-tax incomes of many minimum-wage workers rise above the poverty level (fig. 4). For example, a full-time, full-year minimum wage worker with two children could receive as much as a $3,600 tax refund through EITC, raising income for a family of three above the estimated poverty level for 1997 (for more information on EITC see the Tax Policy article in this issue).

Figure 3

The minimum wage, 1950-97

The minimum wage has not kept pace with inflation

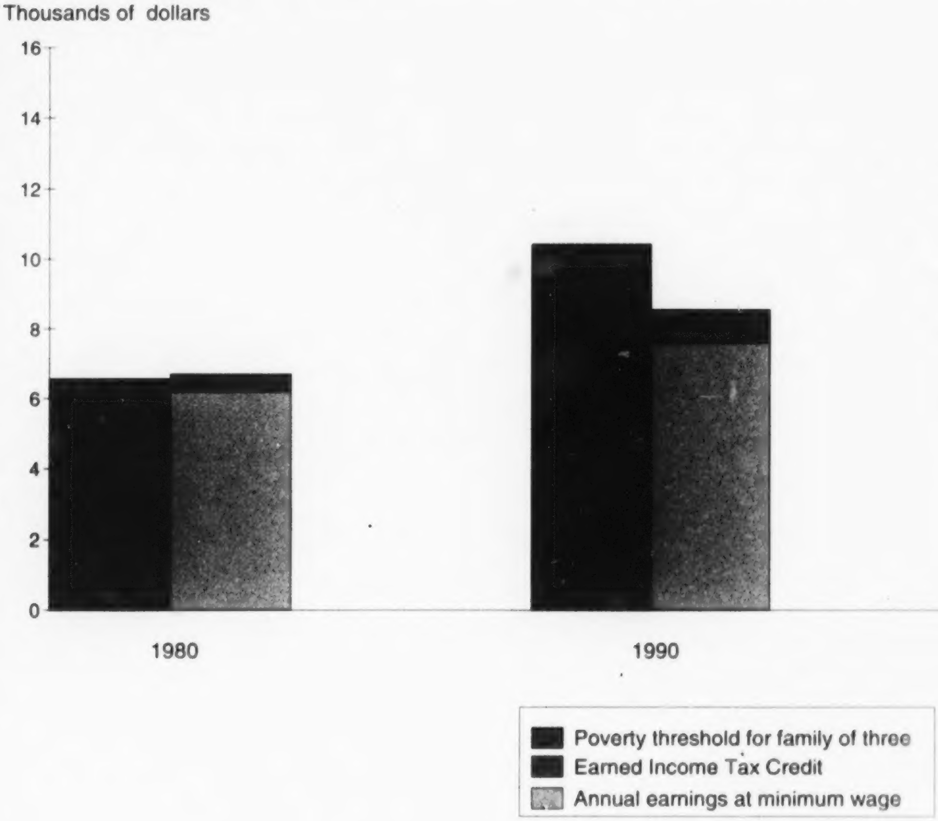


Note: Real wage rates in 1995 dollars adjusted with Consumer Price Index(U); 1996 and 1997 data projected.
Source: Calculated by ERS using CPS earnings file.

Figure 4

Earned Income Tax Credit (EITC) and the minimum wage

EITC in combination with earnings of a full-time minimum wage worker can lift a family of three out of poverty



[1] Data for 1997 are projected.

Source: Calculated by ERS from Bureau of Labor Statistics and Internal Revenue Service data.

It is clear that the minimum wage has not kept pace with inflation and the new increase will not completely restore the purchasing power of the minimum wage realized in the 1970's. Although the minimum wage alone will have little effect on reducing poverty in either metro or nonmetro areas, when combined with the EITC, it holds promise for lifting many minimum-wage workers and their families out of poverty. The minimum wage is not a tightly targeted anti-poverty measure, but the recent increase in wage rate is likely to benefit many low-income rural workers. *[Timothy S. Parker, 202-219-0541, tparker@econ.ag.gov, and Leslie A. Whitener, 202-219-0935, whitener@econ.ag.gov]*

New Law Significantly Affects Small Rural Water Systems

The Safe Drinking Water Act Amendments of 1996 provide funds to the States through the newly created Drinking Water State Revolving Fund and give States greater control and flexibility to allocate funds to bring water systems into compliance with the regulations. These changes could help many rural communities, especially water systems in small towns in highly rural areas, particularly those that States define as disadvantaged.

Many rural communities lack the information and expertise needed to identify and address their environmental problems. The per household or per capita cost of complying with environmental regulations can be extremely high in small rural communities, in some cases leading to poor compliance with environmental regulations and even endangering the health of residents. Drinking water regulations are particularly costly to water systems serving 3,300 or fewer residents, which are unable to take advantage of economies of scale in management, monitoring, and treatment. Compliance costs are also problematic for some larger rural communities with low incomes and tax bases and for places with particularly costly environmental conditions.

The 1996 amendments to the Safe Drinking Water Act (SDWA) in PL 104-182 provide new funding to improve the safety of drinking water, including a new State Revolving Fund (SRF) to finance drinking water system improvements, with special consideration for small and disadvantaged communities. This legislation also makes EPA's regulatory procedures more flexible so that resources can be used effectively to combat the most serious environmental problems facing each community. Special "small system" regulatory provisions could help many rural communities deal with the special problems they face because of high costs and low tax bases. However, it is up to the States to enable their communities to take advantage of most of these provisions.

Major Provisions Include Prevention Programs, Consumer Information, Regulatory Improvements, and New Federal Funds

New and Stronger Prevention Approaches. The source-water protection provisions require States to identify watershed boundaries of drinking water sources, such as rivers, lakes, reservoirs, and tributaries. States then must determine which regulated contaminants are present in the watershed. Community-based partnerships may now petition States for funding to protect water sources from contamination. Prevention programs are cost-effective means for avoiding expensive water treatment, and they can also prevent the cost of compliance with regulations from spiraling out of control.

The capacity development provisions help build the ability to manage, operate, and finance water systems. States may set aside funds in the new SRF to finance capacity development (including managerial, technical, and financial capacity) and implementation efforts. Particularly important is the provision for operator certification, which is a key to keeping costs down while increasing water safety. Because the cost of training operators can be a burden on small rural communities, water systems serving 3,300 or fewer people now may be reimbursed by EPA for operator training costs.

Better Consumer Information. Large water systems are required to provide annual reports directly to their customers on water contaminants and related health effects. State Governors have the discretion to wave this requirement and allow small systems to report indirectly through local papers or give public notice that reports are available to consumers upon request. EPA is required to consult closely with the community, risk communication experts, and environmental and public interest groups in developing any new regulations. These consultations should ensure that the reports inform the public, as well as encourage an informed public to work for securing safe drinking water.

Persons served by a public water system must be notified within 24 hours of any regulatory violations that could seriously harm human health as a result of short-term exposure. A State must send an annual report to the EPA Administrator on violations of national drinking water regulations by public water systems in the State and must make such report available to the public.

Regulatory Improvements. The requirement that EPA develop standards for 25 new contaminants every 3 years has been eliminated. EPA now has the flexibility to decide whether or not to regulate a new contaminant after completing a required review of at least five new contaminants every 5 years. EPA must meet three conditions before it regulates a new contaminant: (1) the contaminant harms human health, (2) it is known or highly likely to be present in public water systems at a high enough frequency and concentration to cause risk to public health, and (3) regulation can reasonably reduce risk to public health. In addition, EPA must publish a nonbinding analysis assessing both the costs and benefits of any proposed regulation.

The 1996 amendments cover several specific contaminants, including a program for testing tap water for estrogen-like substances or other chemicals that have potential hormonal effects. The law incorporates the provisions of the regulatory negotiation on disinfection byproducts like chlorine. And EPA must reserve $10 million annually for health studies that give priority to effects of the deadly micro-organism Cryptosporidium and possible cancer-causing byproducts of tap water disinfectants like chlorine.

Drinking Water State Revolving Fund. The new State-administered safe Drinking Water State Revolving Fund (DWSRF) was authorized through fiscal year 2003. For fiscal year 1997, Congress appropriated $1.275 billion for this program. Starting in FY 1998, the actual level of DWSRF funding allocated to individual States, above a minimum of 1 percent will be based on a needs survey completed and released by EPA in January 1997. One and one-half percent of the Federal funds appropriated for the DWSRF can be used for grants to Indian Tribes and Alaska Native villages to make drinking water infrastructure improvements. States must match Federal funds with their own funds to the amount of 20 percent of their Federal DWSRF capitalization grant.

States may use DWSRF funds to provide loans to public water systems to make improvements in the drinking water infrastructure. States must provide at least 15 percent of the loans from the DWSRF to small communities with fewer than 10,000 people. States may spend up to 30 percent of the loan funds to provide loan subsidies and loan forgiveness to disadvantaged communities, with States setting their own criteria for disadvantaged communities. DWSRF loan subsidies and forgiveness may be made available only to disadvantaged communities.

States also have the option of setting aside funds from the capitalization grants to provide assistance to State programs. States can set aside up to 10 percent of their DWSRF capitalization grant for programs protecting source water, capacity development, and operator certification. States can also use up to 15 percent (but no more than 10 percent for any single purpose) of their funds for water system pollution prevention projects, including source-water protection loans, technical and financial aid for source-water assessment, wellhead protection, and capacity development. In addition, State Governors may transfer up to one-third of DWSRF funding into the Clean Water SRF or an equivalent dollar amount from the Clean Water SRF to the DWSRF.

Rural Areas Expected To Benefit From Small-System Provisions

This act gives States the financial resources and wide flexibility to solve problems faced by small water systems. The major components of solution to these problems are capacity development, operator certification, source water protection, consumer awareness, SRF, and regulatory flexibility.

Small water systems (serving populations under 10,000) experience many problems associated with the lack of economies of scale. Many of the costs associated with these systems are "fixed costs" that are invariant with respect to size of population served. Consequently, small systems, particularly those serving less than 3,300 residents, can find it difficult, if not impossible, to pay for such things as full-time operators, operator training, and technologically intensive methods of monitoring and correcting for some contaminants. They also have difficulty in affording technology as traditionally described by EPA. Many small systems have historically underpriced their drinking water and underinvested in basic system maintenance, resulting in a large backlog of deferred maintenance.

The new small-system provisions of the Drinking Water legislation are meant to alleviate these problems (see box). They call for EPA to designate new affordable compliance technologies or variance technologies for small systems, make exceptions from monitoring for contaminants not likely to be present in the water supply, offer less costly ways of consumer reporting and disclosure, reimburse the expense of operator training, and reserve funding from the new DWSRF for planning and for building and improving their systems.

States have the option to set up a disadvantaged community program. The disadvantaged community program is important because it allows States to provide financial assistance in the form of loan subsidies and forgiveness, which can make the difference between affordable and nonaffordable systems for disadvantaged communities. This form of assistance is not generally available to all communities. The law defines "disadvantaged community" as the service area of a public water system that meets affordability criteria set by the State. States can spend up to 30 percent of their DWSRF on this disadvantaged community program.

It is up to the States to operate such a program and to identify which water systems and communities will benefit from small system provisions and from the disadvantaged com-

Special Provisions for Small Water Systems

Special Provisions	Serving population under 500	Serving population 500-3,300	Serving population 3,300-10,000
EPA must identify affordable treatment technologies	Eligible	Eligible	Eligible
Affordability-based variances in treatment techniques	Eligible	Eligible	Eligible, with EPA approval
Exemption from monitoring for contaminants unlikely to be present	May be eligible	May be eligible	May be eligible
Reimbursement of training costs for operator certification	Eligible	Eligible	Not eligible
Consumer Confidence Reports (CCR): Governors may excuse some communities from direct distribution of CCR to every consumer	Eligible	Eligible	Eligible
Financial Assistance: 15 percent of the State's DWSRF loan fund is set aside for small communities	Eligible	Eligible	Eligible
Up to 30 percent of State's annual DWSRF available for loan subsidies, forgiveness of principal to disadvantaged communities	Eligible	Eligible	Eligible[1]

[1] States develop their own criteria for disadvantaged communities and may allow larger systems and communities to benefit from this form of assistance. However, small communities may benefit most due to their high costs and low tax bases.

munity program. When States operationalize these provisions, small towns (places with population less than 10,000) may especially benefit. About 17,000 of these small towns existed in 1990, containing about 11 percent of U.S. population. Although most of the residents of these towns live in metropolitan counties (table 1), the very small towns (less than 2,500 population) that characterize many rural areas could benefit significantly because the new legislation puts special emphasis on very small systems. Nonmetro counties contain about three times as many of these towns as metropolitan counties. An additional 66 million people (27 percent of U.S. population) live in unincorporated areas. Unincorporated areas often rely on private wells and septic tanks and are not served by any public water system, hence they are less likely to benefit from these provisions than small towns. Most of the residents (58 percent) of unincorporated areas are in metro areas, but a substantial share (42 percent) of them live in nonmetro areas.

Because very small towns and unincorporated areas are defined as rural according to Census, the most rural of nonmetropolitan counties may particularly benefit from the small-system provisions of this legislation. Highly rural counties are particularly common in the Great Plains, the South, and Appalachia (fig. 1). *[Faqir Singh Bagi, 202-219-0546, fsbagi@econ.ag.gov]*

Table 1

U.S. metropolitan and nonmetropolitan population, by size of place, 1990

Size of place[1]	Metropolitan		Nonmetropolitan		Nonmetro share	
	Places	Population	Places	Population	Places	Population
	Number				Percent	
U.S. total	—	192,725,741	—	55,984,132	—	22.5
All places	10,020	154,231,159	13,415	28,306,844	57.2	15.5
Under 10,000 residents	5,717	15,651,891	11,543	12,868,361	66.9	45.1
Under 2,500 residents	4,130	4,283,840	10,795	7,646,972	72.3	64.1
Under 1,000 residents	2,130	1,009,429	7,858	2,990,999	78.6	74.7
Unincorporated (not in place)	—	38,494,582	—	27,677,288	—	41.8

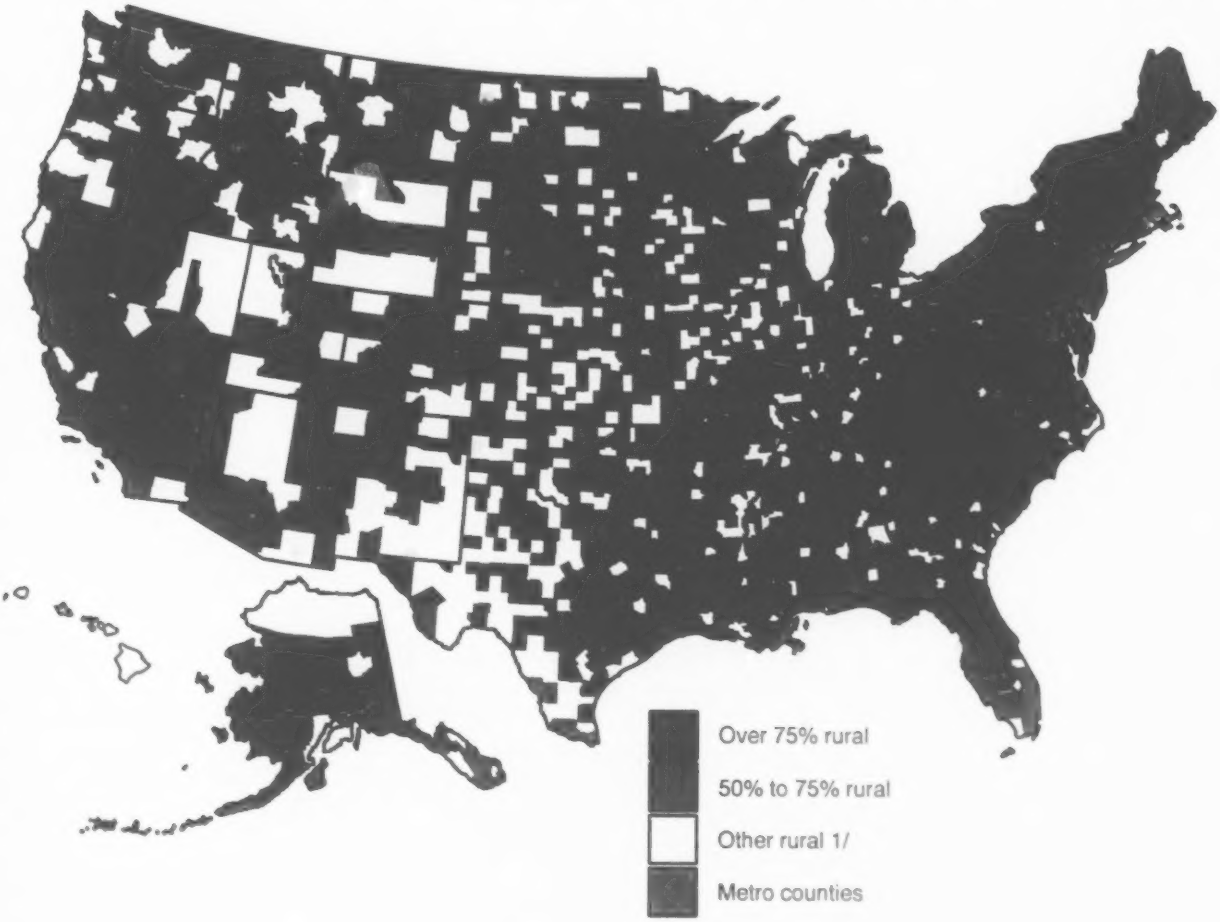
[1] A place is a community defined by the Census.

Source: Calculated by ERS using Population and Housing data from Bureau of the Census, 1990.

Figure 1

Distribution of rural counties, 1990

Highly rural counties are concentrated in the Great Plains, Northwest, Great Lake States, Appalachia, and the South


Over 75% rural
50% to 75% rural
Other rural 1/
Metro counties

1/ Uses Census definition of rural, includes towns under 2,500 population, plus unincorporated areas outside metropoliton urbanized areas.
Source: Calculated by ERS using decennial census of population data from the Bureau of the Census.

Federal Tax Developments Affect Farms and Other Rural Businesses

The inability to reach an agreement to balance the Federal budget prevented the enactment of the most significant tax proposals in 1996. However, important changes that will reduce the cost of capital investment, health insurance, and medical expenses for farms and other rural businesses were enacted. In addition, newly enacted targeting provisions will make many farmers ineligible for the earned income tax credit, while a new work opportunity tax credit will provide employers an incentive to hire certain disadvantaged individuals.

Despite the introduction of a number of new tax initiatives during the year, including proposals calling for the complete restructuring of the Federal tax code, the inability to reach agreement on a plan to balance the Federal budget precluded the enactment of major tax legislation during 1996. However, three bills were enacted that contain tax provisions of importance to farmers and rural America. These include the Small Business Job Protection Act, the Health Insurance Portability and Accountability Act, and the Personal Responsibility and Work Opportunity Reconciliation Act of 1996. The changes contained in these Acts will primarily benefit farmers and other small rural business owners and include increased capital expensing, an expanded deduction for self-employed health insurance costs, the introduction of medical savings accounts, and the simplification of retirement plans available to the self-employed. Significant developments also occurred with regard to the earned income tax credit and a new work opportunity tax credit.

The Earned Income Tax Credit

The earned income tax credit is a refundable tax credit available to low-income workers who satisfy certain income and eligibility criteria. Most recipients receive the credit in a lump sum at the end of the year by claiming it on their Federal income tax return. Since the credit is refundable, any amount in excess of Federal income and other tax liabilities is used to help the taxpayer offset Social Security taxes. This refundable portion of the credit is considered a program outlay, while that part used to offset Federal income taxes is considered a tax expenditure. In recent years, as the earned income credit has been expanded, the refundable portion has increased. In fiscal year 1995, about 80 percent of the total credit was refunded to taxpayers. Based on Federal funds data, the refundable portion of the credit was $16.8 billion. The total value of the credit was about $21.3 billion.

Efforts to more precisely target the credit continued in 1996. Legislation lowering the income threshold for the disqualifying income test from $2,350 to $2,200 and adding net capital gain to the type of income considered under the test was enacted. As a result, an otherwise qualifying individual will not be eligible for the earned income tax credit if the taxpayer has interest, dividend, net rent or royalty income or capital gain net income in excess of $2,200. The primary purpose of this test is to improve the targeting of benefits by denying eligibility to those individuals who may have a relatively low level of earned income but a significant amount of unearned income suggesting some wealth. Overall, only a small percentage of all recipients will be ineligible for the credit as a result of this change. However, a substantial number of farmers, especially dairy and livestock farmers, currently receiving the credit will be disqualified primarily because sales of certain farm assets are treated as capital gains.

The earned income tax credit is phased out if earned income or adjusted gross income, whichever is greater, exceeds a specific phaseout level. However, adjusted gross income does not include a variety of tax-exempt income sources and may be reduced by a variety of losses. In an effort to further improve targeting, the definition of adjusted gross income for purposes of phasing out the earned income tax credit was modified by disregarding certain losses. The losses that were disregarded include net capital losses, net losses from trusts or estates, net losses from nonbusiness rents and royalties, and half of the net losses from businesses computed separately for nonfarm sole proprietorships, sole proprietorships in farming, and other businesses. Again, farmers would be disproportionately affected because nearly half of all farmers receiving the credit in 1993 reported farm losses, with the average loss of about $10,500.

Because the credit is targeted to low-income workers, many of whom are below or near the poverty level, benefits are the largest in those States identified as persistent-poverty States (fig. 1). Residents of such States received a per capita program benefit of $85.00 in 1995. When added to the benefit provided in the form of income or other tax offsets, the per capita benefit exceeded $100. The total value of the credit increased by about one-third between fiscal years 1994 and 1995, while the refundable portion increased by about 40 percent. An estimated 4.7 million rural workers and their families, or about 1 out of every 5 rural residents, received benefits from the credit in fiscal year 1995. The total fiscal year 1995 rural share of the credit is estimated at $5.3 billion.

As the credit continues to expand under the phase-in schedule enacted in 1993, its importance relative to other programs targeted to low-income individuals continues to increase. For fiscal year 1997, the credit is expected to provide low-income workers and their families over $25 billion in benefits, with the rural share estimated at about $6.2 billion.

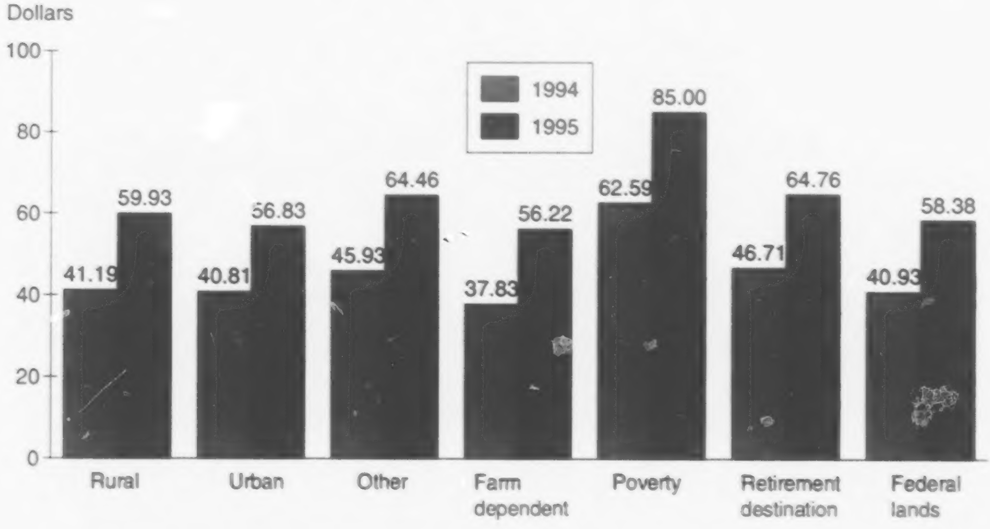
The Work Opportunity Tax Credit

The Small Business Job Protection Act of 1996 replaced the targeted jobs credit with a work opportunity credit based on a percentage of qualified wages paid to employees who begin work after September 30, 1996, and before October 1, 1997. The credit is equal to 35 percent of qualified first-year wages compared with 40 percent for the old targeted jobs tax credit. The amount of qualified wages is limited to $6,000 for each employee ($3,000 for qualified summer youth employees) during the first year of employment. Thus, the maximum credit for each employee is $2,100, except for summer youth employees, for whom the maximum credit is $1,050. To qualify for the credit, an employee must satisfy a minimum employment period test. Under the test, the employee must either be employed by the employer for at least 180 days or must perform at least 400 hours (120

Figure 1

Per capita earned income tax credit benefits by type of State, fiscal year 1994-95 1/

Benefits in 1995 increased significantly compared with those in 1994 2/



1/ Refundable portion of credit only.

2/ See data definitions for State classifications.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

hours for qualified summer youth employees) of service for the employer. The credit is not refundable and is thus subject to the annual tax liability limitation on the general business credit.

The credit is available to employers who hire individuals from one or more of seven targeted groups. Membership in a targeted group for the credit must be certified by the local State employment security agency. The seven targeted groups include: (1) members of a family receiving assistance under Aid to Families with Dependent Children (AFDC) or a successor program, (2) a veteran who is a member of a family either receiving AFDC assistance or assistance under a Food Stamp program, (3) an individual convicted of a felony who is hired within 1 year after conviction or release from prison and who is a member of a family whose income is 70 percent or less than the Bureau of Labor Statistics lower living standard, (4) an individual between the ages of 18 and 25 who lives within an Empowerment Zone or Enterprise Community, (5) an individual who is 16 or 17 years old who performs services for the employer between May 1 and September 15 and lives in an Empowerment Zone or Enterprise Community, (6) an individual who has a physical or mental disability that is a substantial handicap to employment, and (7) an individual between the ages of 18 and 25 who is a member of a family receiving assistance under a food stamp program.

The credit is expected to provide about $300 million in assistance to employers to hire the targeted individuals. The rural share of this amount is not clear. However, the credit will provide a substantial incentive for rural employers to hire the targeted economically disadvantaged individuals due to the nearly one-third reduction in payroll costs.

The fiscal year 1998 budget proposes to extend the credit for 1 year and to add a new targeted group for individuals 18 to 50 years old who are subject to the time limits for receipt of Food Stamps. In addition, a new welfare-to-work tax credit is proposed that would provide a 50-percent credit on the first $10,000 of wages paid to long-term recipients of assistance under AFDC or a successor program for the first and second year of employment. Thus, an employer could receive a maximum credit of $10,000 over the 2-year period.

Significant Tax Legislation Expected in 1997

Improved prospects for agreement on a plan to balance the Federal budget that would include tax cuts suggests that significant tax legislation may be enacted in 1997. While there is considerable disagreement regarding the size of the cuts, both the Administration and Congress have proposed significant tax relief, including a child tax credit, a reduction in capital gains taxes, education and savings incentives, and Federal estate and gift tax relief. While none of these changes are specifically targeted to rural areas, they would significantly benefit farmers and other rural residents. *[Ron L. Durst, 202-219-0896, rdurst@econ.ag.gov]*

Many Significant Regulatory Changes Take Effect in 1997

The ultimate, long-term effects of recent regulatory changes are hard to predict, but they could prove to be important for many rural areas. Rural development could be significantly affected by regulatory changes linked to telecommunications, environmental protection, natural resources and land management, health insurance, social security, immigration reform, banking, and Native American programs.

Last year was a "watershed" year for regulatory change, and most of these changes take effect in 1997. In addition to revisions that reinvent government, reform the welfare system, raise the minimum wage, and revise drinking water regulations, all discussed elsewhere in this report, many other regulatory changes deserve attention. Here, we discuss those affecting telecommunications, the environment, public lands, health, social security, immigration, banking, and Native Americans.

Telecommunications Act's Universal Service Rules Are Crucial to Rural Areas

One of the provisions of the Telecommunications Act of 1996 mandated that the Federal Communications Commission (FCC) write regulations aimed at achieving universal service. By law, universal service requires that quality telecommunications service (including access to advanced telecommunication and information services) should be available everywhere in the country at equitable rates, and that priority be given to primary and secondary schools, health care providers, and libraries. Because telecommunication links to providers of education, health, and business services (to name just a few) are increasingly important, rural interest in the FCC's regulations centers on such questions as which services will be included in universal service, who will pay for these services, which rural places and institutions will receive support, and how much support will they receive?

The FCC issued proposed universal service regulations in May 1997 following the recommendations of the Federal-State Joint Board. In November 1996, the Joint Board recommended that a full range of telephone services be provided, that special programs aiding low-income consumers be supported, and that States set rates based on affordability criteria. The Board also made recommendations concerning how to administer the universal service support mechanism, which local phone services, schools, libraries, and health care providers would be eligible for assistance, and how much financial support they would receive.

The school, library, and health care recommendations go to the core of rural concerns. The Board recommended that a large number of public institutions be eligible for assistance. For example, the Board estimates that 9,600 health care providers will be eligible to receive telecommunication services supported by the universal service mechanism. These include teaching hospitals, medical schools, health centers, and health departments. The Board recommended that eligible schools and libraries be able to buy at discount any telecommunication service, including Internet. The proposed discounts range from 20 to 90 percent of the provider's rate, based on need and "high cost" factors. Funding for universal support for schools and libraries is capped at $2.25 billion per year. Unspent funds, though, can be carried forward to subsequent years. *[Peter Stenberg, (202)219-0543, stenberg@econ.ag.gov]*

Pesticides Rules Revised and More Stringent Air Quality Rules Proposed

The new legislation establishing rules for pesticides in raw and processed foods was a compromise between consumers and industry, allowing pesticide use to continue while limiting the cancerous residue allowed. This legislation replaced the Delaney clause requiring "zero tolerance" of cancer-causing additives with a provision requiring "reasonable certainty" of no harm (generally interpreted as having no more than one-in-a-million lifetime chance of causing cancer). This legislation also limits the States' ability to impose stricter restrictions, has special rules protecting children, provides better disclosure of information to consumers, and expedites government approval of new pesticides. Farming areas, particularly places that grow fruits and vegetables, should benefit from this change because recent court decisions based on the Delaney clause had instructed

EPA to prohibit the use of some common pesticides. The law now allows EPA to focus its attention on more dangerous threats to public health.

EPA's proposal for more restrictive air quality standards covering airborne particles and ground-level ozone may have more far-reaching consequences for rural areas. This could impose significant new costs on polluting industries, such as oil refineries and coal power plants and could require reductions in auto and truck emissions. If industry cannot accommodate these changes, some local areas may have to restrict pollution-generating growth and development to avoid penalties, such as reduced Federal infrastructure aid. This could benefit rural development for several reasons. First, it could redirect development from large urban and suburban areas that suffer from high levels of air pollution to less polluted rural areas. Second, reduced pollution from coal power plants could improve conditions in rural recreation areas currently suffering from acid rain. However, development could be negatively affected in some polluted rural areas, such as industrial or congested places in confined areas like mountain valleys, and employment could decline in some rural coal producing areas. These rules were proposed in November 1996 and are scheduled to become final in June 1997.

New Regulations Affect Wetlands, Fisheries, and Public Lands

In December 1996, the Army Corps of Engineers acted to preserve wetlands when it stopped allowing easy and quick approval (nationwide permit 26) for private property owners who want to drain small amounts of wetlands of up to 3 acres (pre-conversion notification not required when less than 1/3 acre is drained). This permit, which was applicable only to isolated, upland wetlands, is being replaced by activity-based permits that will give general approval for specific types of activities that will take place on the wetlands. This change, which will take effect in 18 months, should give the Corps more control over how converted wetlands are used. This could benefit rural areas that rely on tourism attraction based on wildlife and scenic attributes of wetlands. However, it could slow residential and industrial development in places with little developable land and reduce land values of property owners in some of these places. Affected areas, such as the Prairie Pothole lands in North Dakota, tend to be away from lakes, rivers, swamps, and coastal areas, and are concentrated in the Northern Plains, Midwest, and Mississippi Delta (fig.1). Other recent changes that may have even greater benefits in preserving and restoring wetlands include the recent reauthorization of USDA's Wetland Reserve programs and rule changes making wetlands eligible for USDA's Conservation Reserve Program (CRP), including making the Prairie Potholes a national conservation priority area for CRP. These programs pay agricultural landholders to protect lands that support wildlife (CRP is discussed in the miscellaneous programs article in this report.)

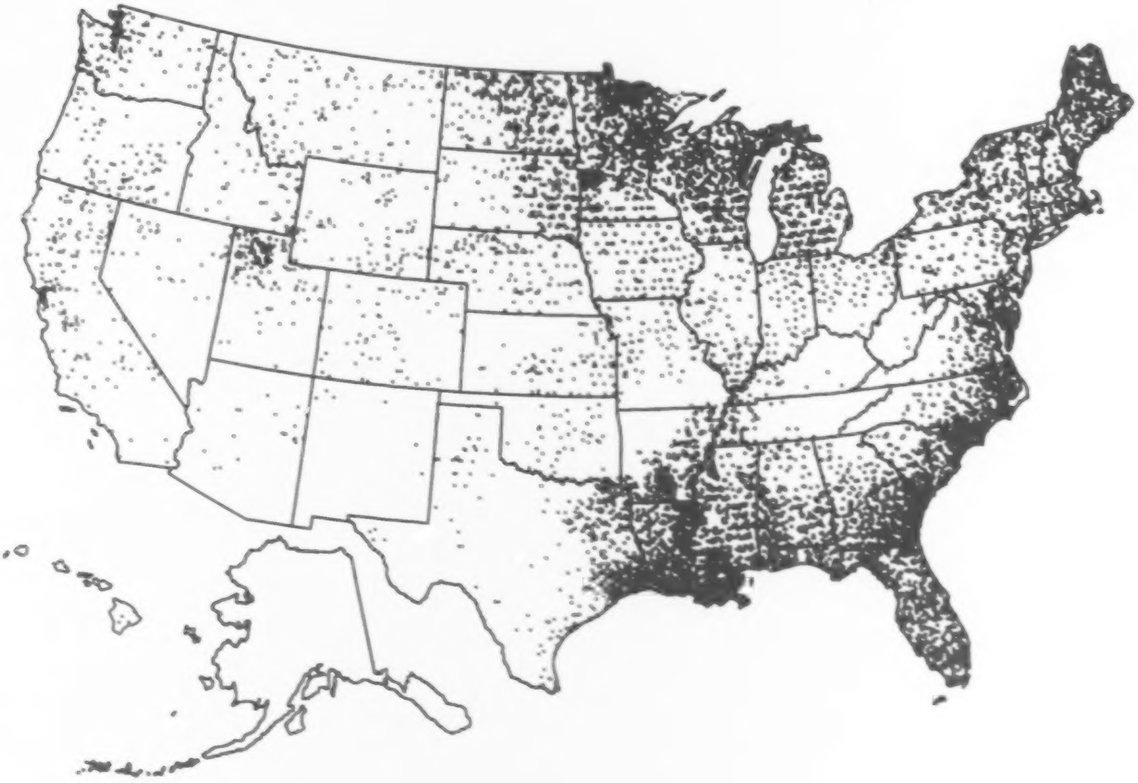
Landowners would also benefit from new guidelines associated with the Endangered Species Act that allow the creation of habitat conservation areas with the cooperation of private landowners, and provisions in the parks legislation that relaxed restrictions on development in some barrier islands in Florida. In addition, the new legislation covering the management of the fisheries, popular with both environmentalists and the fishing industry, should help protect overfished waters, hence benefiting rural coastal areas.

Meanwhile, various measures were taken to improve and preserve Federal parks and other public lands. The parks legislation authorized and provided funds to create or improve 120 parks, trails, rivers, and historical sites in 41 States. User fees were increased in national parks to help pay for park improvements and upkeep. The parks legislation also enabled the President to call for reduced Federal timber cutting in Alaska's Tongass National Forest. Funding from the water projects legislation will help restore the Everglades in south Florida. The President also used authority under the 1906 Antiquities Act to preserve 1.7 million acres of public lands as a national monument in southern Utah.

Figure 1

Location of rural wetland on non-Federal land 1/

Rural wetlands concentrate along rivers, lakes, and coastal areas



1/ Data were missing for parts of the country, including Alaska, west Texas, central New Mexico, eastern Colorado, and West Virginia.
Source: ERS calculations based on 1992 Natural Resources Inventory.

Health Insurance and Social Security Benefit Rules Changed

In an effort to fill some of the holes in the health insurance safety net, the Health Insurance Portability Act of 1996 guarantees that individuals have access to private health insurance coverage when they lose jobs. The legislation guarantees access to the more expensive individual coverage plan; the less expensive group coverage would be available only after a person is re-employed. Such coverage, however, could still be denied for up to 12 months after a person changes jobs. Nevertheless, this provides some needed security to workers in an era of global and technological changes that prevent people from maintaining the same jobs over their lifetime. It might particularly help rural places experiencing layoffs, such as in the Pacific Northwest, and high-poverty areas heavily affected by welfare reform, where large numbers of people entering the labor force may make finding a job harder for recently laid-off employees.

Other recent changes may be even more important to rural areas than the portability provisions. For example, the increase in the tax deductibility of health insurance, which rises to 80 percent deductible by the year 2006, may be the most important benefit for rural areas, particularly agricultural areas where many farmers are self-employed. Another change prevents insurance companies from canceling coverage of small firms—less than

50 people—which are more common in rural than in urban areas. Before this legislation, insurance companies were allowed to cancel coverage when one or two employees developed costly illnesses that raised insurance company costs.

Changes in Social Security coverage rules include an increase in the earnings allowed before benefit reductions. This earnings limit was raised from $11,520 per year in 1996, gradually increasing to $30,000 by the year 2002, and indexed for inflation thereafter. This should boost incomes in rural areas with large numbers of retirees, such as retirement destination areas. However, the impact will not be great, since the raised earnings limit only affects retirees who work and are in the 65-69 age bracket, which accounts for only 2 percent of the rural population over 65 years. Other Social Security changes eliminate coverage for alcoholics and drug addicts and reduce payments for stepchildren who have other means of support.

Immigration Reform Could Reduce Some Pressures on Border Areas

Included as part of the Omnibus Spending Act of 1996, immigration reform provisions increase penalties for alien smuggling and document fraud, and make it easier to detain illegal immigrants at the border and deport them. The same legislation included funding for improving the border fence in California and for increasing enforcement efforts of the Immigration and Naturalization Service. To the extent that these provisions can reduce illegal immigration, the demands illegal aliens place on public sector infrastructure and services (roads, water systems, police, education, health) will be lessened and unemployment rates may decline and wages rise, reflecting a reduced immigrant labor supply. The reverse side to this supply/demand equation is that companies that employ illegal immigrants may see their labor costs rise.

New Changes Reduce Regulatory Burden and Potential Competition for Small Banks

Legislation in 1996 imposed fees on banks and thrift institutions to shore up the thrift deposit insurance fund. This legislation (part of the September 1996 Omnibus Fiscal 1997 Appropriations Act) contained various provisions affecting financial services, including several that are particularly important to rural or small banks. Several changes were made that effectively reduced the frequency that regulators may examine small banks—from once every 12 months to once every 18 months. These changes, and other generally deregulatory provisions, should benefit small banks like those in many rural areas, but they may also result in less public accountability for these banks. Another provision of this legislation protects small banks serving Farm Credit System (FCS) borrowers from potential competition from credit unions. This provision responded to a controversial charter given by the State of Wisconsin to a credit union to serve FCS borrowers.

Earlier in 1996, the Farm Credit System Reform Act (discussed in detail in the 1996 *RCaT*) reduced the regulatory burden for FCS institutions. The Farm Credit Administration (FCA), which regulates FCS, proposed additional changes to remove regulatory restrictions on FCS lending not found directly in the statute. These restrictions were modified after facing strong opposition from commercial banks that objected to the prospect of subsidized FCS competition. FCA also proposed new regulations to strengthen capital requirements of FCS institutions to cover the system during future economic downturns. Both proposals became effective on March 11, 1997. However, FCA faces a lawsuit regarding regulations that effectively broaden FCS lending authority.

Recent Decisions Important for Native American Tribes

Following the March 1996 Supreme Court decision that limited tribal rights to sue States over whether Indian gaming operations could be initiated (see 1996 *RCaT* for more details), the Pueblo and Apache tribes experienced a setback when a U.S. District Court ruled in August 1996 that some tribal-State compacts were invalid in New Mexico because they had been approved by the Governor but not by the State legislature. This decision has been appealed. If the casinos are forced to close, the tribes could have difficulty compensating for the estimated 3,000 lost jobs and $150 million in lost annual revenue. Native Americans are expected to benefit, though, from settlement of claims on the Bureau of Indian Affairs, in which the Government could end up paying as much as $575 million to various tribes.

Miscellaneous Regulatory Changes Affect Rural Areas

Many miscellaneous changes have gone relatively unnoticed but will nonetheless have some important effects in rural areas. For example, last May, the President signed two executive orders of note. One creates the President's Empowerment Contracting program, which supplements existing Federal procurement rules encouraging Federal agencies to contract with businesses in distressed communities. Businesses that hire significant numbers of residents from low-income areas or invest a lot in such areas can participate in the program. This should benefit rural areas, which tend to have low incomes. The second executive order encourages Federal agencies to locate in the historic districts of central cities.

Another notable change involves the decision by the U.S. Postal Service to reduce the number of small rural post offices and increase post office box fees (smalltown post offices not only offer important communications for residents and businesses, but are viewed as key social institutions in rural America). The Department of Housing and Urban Development revised its regulations for the Community Development Block Grant program, allowing States to contract with regional development organizations to operate Section 108 revolving loan funds. This could benefit rural areas because the regional development organizations in some States are more actively involved in rural development than State agencies. In addition, the Federal Agriculture Improvement and Reform Act of 1996 revised the definition of eligible "rural areas" for USDA's Community Facilities loan program to include any city, town, or unincorporated area with a population of 50,000 or less excluding urbanized areas immediately adjacent to a city, town, or unincorporated area with a population exceeding 50,000. This legislative change broadens eligibility for the program at a time when program funding has declined. *[Rick Reeder, 202-219-0551, rreeder@econ.ag.gov]*

Appendix A: Rural Share of Selected Programs

Appendix table 1--Rural share of selected programs, fiscal year 1995

Agency[1] and Program	Nonmetro counties	Rural States
	Percent	
Exhibit: share of 1995 U.S. population	20.4	11.4
General assistance:		
HUD State/Small Cities Community Development Block Grants (CDBG)	—	25.5
EDA adjustment assistance:		
Planning Support	59.3	2.6
Technical Assistance	26.7	18.7
Special Economic Development and Adjustment Assistance[2]	25.5	9.7
FEMA disaster relief	—	6.3
USDA/CSREES extension activities[3]	30.1	27.6
BIA Native American assistance programs	—	42.5
Infrastructure assistance:		
USDA/RUS Rural Water and Waste Disposal Grants	64.9	26.6
USDA/RUS Rural Water and Waste Disposal Loans	80.6	26.3
USDA/RUS Rural Electrification Loans and Loan Guarantees[3]	50.8	25.0
USDA/RUS Rural Telecommunication Loans and Loan Guarantees[3]	67.5	24.3
USDA/RHS Rural Community Facilities Direct Loans	79.2	23.3
USDA/RHS Rural Community Facilities Loan Guarantees	72.5	16.8
USDA/RUS Distance Learning and Medical Link Grants	84.8	35.1
DOT Highway Planning and Construction Grants	—	16.5
DOT Airport Improvement Grants	12.8	19.5
DOT Nonurban Public Transportation	—	22.6
EPA Capitalization Grants—Clean Water State Revolving Fund	—	16.5
EDA Public Works Grants	55.9	26.4
Business assistance:		
SBA Small Business Loan Guarantees—7(a)	22.3	14.8
SBA Certified Development Loan Company guarantees (Section 504)	17.8	12.7
SBA disaster loans		
Economic Injury Disaster Loans	30.5	10.5
Physical Disaster Loans	3.2	0.7
RBS Business and Industry Loan Guarantees	62.0	27.2
RBS Intermediary Relending Program Loan Guarantees	67.6	37.2
RBS Rural Business Enterprise Grants (RBEG)	66.0	34.4
EDA Special Economic Development and Adjustment Assistance[4]	25.5	9.7
Housing assistance:		
USDA/RHS Single Family Housing (Section 502) Direct Loans and Guarantees	46.8	21.4
USDA/RHS Multifamily Housing (Section 515)	70.2	29.8
VA Guaranteed and Insured Housing Loans	11.4	13.0
HUD/FHA Single-Family Mortgage Insurance	6.3	8.5
HUD mortgage insurance for low/moderate income families	14.8	13.0

See notes at end of table.

Continued—

Appendix table 1—Rural share of selected programs, fiscal year 1995—Continued

Agency[1] and Program	Nonmetro counties	Rural States
	Percent	
Exhibit: share of 1995 U.S. population	20.4	11.4
Education assistance:		
HHS Head Start	24.9	14.1
EDU Title 1 elementary & secondary school aid for disadvantaged	25.1	11.9
EDU special education for the disabled—State grants	—	11.6
EDU student financial assistance (Pell grants)	19.4	12.2
EDU direct student loans (Perkins loans)	16.9	14.3
EDU guaranteed student loans	—	10.6
Training and employment assistance:		
DOL training and employment services (JTPA)[5]	—	10.2
DOL Dislocated Worker Program	—	7.3
DOL Federal-State employment service	—	14.7
DOL Older Americans Employment	1.7	3.2
EDU adult education—State Administered Program	—	13.3
EDU vocational education—basic grants to States	—	14.8
EDU rehabilitation service-basic support	—	14.5
Environmental protection and natural resource programs:		
EPA Superfund Toxic Waste Cleanup		
Hazardous waste management—financial assistance to States	—	11.5
Hazardous substance response trust fund	—	8.3
USDA Conservation Reserve Program	88.9	38.8

[1] Agency abbreviations in table are: HUD=Department of Housing and Urban Development; EDA=Economic Development Administration (Department of Commerce); FEMA=Federal Emergency Management Agency; USDA=U.S. Department of Agriculture; CSREES=Cooperative State Research, Education, and Extension Service; RBS=Rural Business Service; RUS=Rural Utilities Service; RHS=Rural Housing Service; BIA=Bureau of Indian Affairs (Department of Commerce) DOT=Department of Transportation; EPA=Environmental Protection Agency; SBA=Small Business Administration; FHA=Federal Housing Administration; VA=Veterans Affairs; EDU=Department of Education; HHS=Department of Health and Human Services; DOL=Department of Labor.

[2] Includes economic and defense adjustment.

[3] Federal Funds data covering CSREES extension activities (includes research) and RUS electric and telephone loans only track funds to the county where central offices are located. The services provided by these programs often cover multi-county areas, hence these data may understate the extent to which nonmetro counties benefit from the programs.

[4] The percentages reported here refer to the entire Special Economic Developent and Adjustment Assistance program, which includes both economic adjustment and defense adjustment (this program was also reported earlier under general business assistance).

[5] Federal Funds data covering training and employment services under the Job Training Partnership Act (JTPA) include the summer youth, adult training, Job Corps, and some other programs. JTPA's Dislocated Worker Program reported seperately.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Data Sources

Federal Funds Data. The principal data source we use to indicate geographic dispersion of program funding is the Consolidated Federal Funds Reports data from the U.S. Department of Commerce, Bureau of the Census. We usually refer to these data as the Federal Funds data. Census collects these data annually from each Federal department or agency. We aggregated the latest available data (fiscal year 1995) to the county, State, region, and national level for each program. (Unless otherwise specified, references to years are fiscal years.) We have also computed per capita estimates by type of nonmetro county and type of State (the typologies are explained later in this appendix). These per capita estimates form the basis for our information indicating the types of rural places that are particularly affected by each program.

The Census data for 1995 covered 1,214 individual programs, but not all of these programs had reliable data at the county level. Each program has individual characteristics that affect the way the data show geographic patterns. For example, funds for many programs go directly to State capitals or regional centers that redistribute the money or program benefits to surrounding areas. Examples include block grant programs and some procurement programs that involve a substantial degree of subcontracting. Census screens the data to identify such programs, and we have added our own screen, which separates out those programs that allocate 25 percent or more of their funds to State capitals. We ended up with 744 programs that we believe are fairly accurate to the county level for 1995. For the screened-out programs, we believe it is only meaningful to indicate geographic variations among States but not among counties. Thus, for some of the programs, we provide county maps and statistics, while for others we rely on State maps and statistics. Appendix A lists the programs covered in this report, including the percentage of funds going to nonmetro counties (for programs deemed accurate to the county level) and the percentage of funds going to rural States (for all programs, including programs not deemed accurate to the county level).

The benefits of Federal programs do not all go to the places that receive funds. For example, money spent on national parks benefits all who visit the parks and not just those who live where the parks are located. Money going to USDA's county extension offices may be expected to provide services to surrounding multicounty areas. Similarly, rural electric loans go to borrowers who may be located in one county but provide electric service to a much wider, multi-county area. Such spillover benefits are present in almost all Federal programs and are not reflected in the Federal funds data. In addition, different programs affect communities in different ways and have different multiplier effects on local income, employment, and community well-being. Thus, even if the reported funding dispersion is considered to be an accurate depiction of where the funds are spent, care is required when interpreting the data as program effects.

Federal Funds data may represent either actual program expenditures or obligations, depending on the form of the data provided to Census. Direct loans and loan guarantees are reported according to the volume of loans obligated, and do not take into account interest receipts or principal payments. Consequently, these data do not always correspond to program totals reported in government budget documents, such as budget authority, outlays, or obligations (see definitions).

ERS' Federal Funds Data—sorted by type of county and State and used to produce tables, charts, and maps for this publication—will be available on CD-Rom, at a cost to be announced later, as one of ERS's Standard Data Products. *(Faqir Singh Bagi, 202-219-0546, fsbagi@econ.ag.gov; Samuel Calhoun, 202-219-0584, scalhoun@econ.ag.gov; and Rick Reeder, 202-219-0551, rreeder@econ.ag.gov)*

Budget Data. We obtained information on regulatory changes and recent changes in program funding levels, such as the level and change in funding from 1995 to 1996, from various sources, including *Congressional Quarterly Weekly Report*, the President's Fiscal Year 1998 Budget, the 1998 budget summaries provided by major government agencies, Congressional legislation, conference reports, and legislative summaries, and from the most recent Catalogue of Federal Domestic Assistance. In some cases, we contacted budget officials by phone to obtain information.

Population Data. Per capita funding amounts were estimated using 1995 county population estimates from the Bureau of the Census.

Minimum Wage Data: The data used in the minimum wage analysis are from the 1995 and 1996 Current Population Survey (CPS) earnings files. The data covered a 12-month period from October 1995 to September 1996. Beginning October 1996, the minimum wage was increased from $4.25 to $4.75 per hour. The earnings file is an extract of basic labor force items from the monthly CPS survey. In addition to the monthly labor force questions, in their fourth and eighth months of the sample rotation, respondents are asked additional questions about their job earnings. These include items such as usual hours worked last week, usual earnings per week, and the hourly rate of pay.

Total hourly earnings was computed by dividing usual weekly earnings by usual weekly hours. By using total hourly compensation, we took into account remunerations such as tips, overtime, and commissions that are not otherwise included in a straight hourly wage. Also it gave us estimates for salaried and other nonhourly workers that do not have an hourly wage rate reported. Many of these nonhourly workers have low earnings because of low salaries, or very high weekly earnings, or both. However, this measure of compensation presents other problems. In some cases, this measure of hourly compensation is more imprecise. According to research from the Bureau of Labor Statistics, respondents are more likely to under report total weekly earnings than hours, so the computed hourly earnings for some workers may be lower than the actual earnings.

Definitions

Typologies. Classification systems developed and periodically revised by ERS to group counties and States by economic and policy-relevant characteristics. The county typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR-89, U.S. Department of Agriculture, Economic Research Service, December 1994. The State typology codes were first developed in Elliot J. Dubin, *Geographic Distribution of Federal Funds in 1985*, Staff Report AGES89-7, U.S. Department of Agriculture, Economic Research Service, March 1989, and were revised for the 1996 Federal Funds *RCaT*.

County Economic Types (mutually exclusive; a county may fall into only one economic type):

Farming-dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Mining-dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Manufacturing-dependent—manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Government-dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Service-dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance and insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years of 1987-89.

County Policy Types (overlapping; a county may fall into any number of these types):

Retirement-destination—The population aged 60 years and older in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land in the year 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, and 1990.

Transfer-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over 3 years of 1987-1989.

State Types (the first three types are mutually exclusive; a State may fall into only one category; the remainder are overlapping)

Because many Federal programs do not have accurate county-level data, we developed a State typology to assist in differentiating among types of States and their funding levels. First, we categorized States into three groups (rural, urban, and other) based on the percentage of a State's population residing in urban parts of metro areas. We defined four other types of States: farming-dependent, persistent-poverty, retirement-destination, and Federal lands. In each case, we used the same kinds of measures that were used to construct ERS's county typologies. However, the cutoffs were lowered because States have more internal socioeconomic diversity than most counties.

ERS's State types are defined as follows:

Rural—In 1993, 45 percent or less of the State's population resided in urban areas within the metro areas.

Urban—In 1993, 70 percent or more of the State's population resided in urban portions of metro areas.

Other (neither urban nor rural)—More than 45 percent but less than 70 percent of the State's population in 1993 resided in urban portions of metro areas.

Farming-dependent—In 1991-93, 4 percent or more of the total labor and proprietor income came from farm labor and proprietor income.

Persistent-poverty—Fifteen percent or more of a State's persons had income below poverty in 1960, 1970, 1980, and 1990.

Retirement-destination—A State's aged (over 60) population in 1990 increased by 5 percent or more due to net inmigration from 1980 to 1990.

Federal lands—The Federal Government owns 28 percent or more of total land in the State.

These State types were illustrated in figures 1-5 of the 1996 Federal Programs *RCaT*.

Rural States include Alaska, Arkansas, Idaho, Iowa, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, South Dakota, Vermont, West Virginia, and Wyoming.

Urban States include Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Jersey, New York, Rhode Island, Texas, and Utah.

Other States include Alabama, Georgia, Indiana, Kansas, Louisiana, Michigan, Minnesota, Missouri, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, and Wisconsin.

Farm-dependent States include Arkansas, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

Poverty States include Alabama, Alaska, Arkansas, District of Columbia, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, South Carolina, South Dakota, Tennessee, and West Virginia.

Retirement-destination States include Arizona, Florida, Hawaii, Idaho, Nevada, New Mexico, North Carolina, Oregon, South Carolina, Utah, and Washington.

Federal lands States include Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Regions

Census Regions—We used the conventional four Census-defined regions as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

In most cases, we used only the nonmetro portion of these regions when referring to county level data variations.

Other Definitions

Metro and Nonmetro Areas

Metro areas. Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and a total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 Census. Throughout *Rural Conditions and Trends*, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas. These are counties outside metro area boundaries. In *Rural Conditions and Trends*, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Rural-Urban Continuum County Codes

Classification system developed by ERS to group counties by the size of their urban population and the adjacency to metropolitan areas. (See Margaret A. Butler and Calvin L. Beale; *Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993*, AGES 8428, U.S. Department of Agriculture, Economic Research Service, September 1994).

Metro counties—

Central counties of metro areas of 1 million population or more.

Fringe counties of metro areas of 1 million population or more.

Counties in metro areas of 250,000 to 1 million population.

Counties in metro areas of fewer than 250,000 population.

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area.

Urban population of 20,000 or more, not adjacent to a metro area.

Urban population of 2,500 to 19,999, adjacent to a metro area.

Urban population of 2,500 to 19,999, not adjacent to a metro area.

Completely rural or less than 2,500 urban population, adjacent to a metro area.

Completely rural or less than 2,500 urban population, not adjacent to a metro area.

Nonmetro adjacent counties—

Nonmetro counties physically adjacent to one or more metro areas and having at least 2 percent of the employment labor force in the county commuting to the central metro county.

Budgetary Terms

Budget authority. The authority becoming available during the year to enter into obligations that will result in immediate or future outlays of government funds. In some cases, budget authority can be carried over to following years. It can take the form of appropriations, which permit obligations to be incurred and payments to be made, or authority to borrow, or authority to contract in advance of separate appropriations. Supplemental appropriations provide budget authority when the need for funds is too urgent to be postponed until the next regular annual appropriations act.

Obligations Incurred. Once budget authority is enacted, Government agencies may incur obligations to make payments. These include current liabilities for salaries, wages, and interests; contracts for purchase of supplies and equipment, construction, and the acquisition of office space, buildings, and land. For Federal credit programs, obligations are recorded in an amount equal to the estimated subsidy cost of direct loans and loan guarantees.

Outlays. This is the measure of government spending. Outlays are payments to liquidate obligations (other than repayment of debt), net of refunds and offsetting collections.

Direct loan. This is the disbursement of funds by the government to a non-Federal borrower under a contract that requires repayment, with or without interest.

Loan guarantee. This is any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender.

Fiscal year. A fiscal year is the government's accounting period. It begins October 1 and ends September 30, and is designated by the calendar year in which it ends.

The reader may wish to use last year's Federal Programs issue to look back 1 year to review what happened to these programs in 1996. In that, our very first Federal Programs issue, we provided more detail about the purpose and activities of core development programs. We also covered a broader array of programs, including agriculture, defense, income support, health, education and training, and natural resources and environment programs. The miscellaneous programs article in that issue covered social services, trade, and Native American programs.

Another reason for referring to last year's Federal Programs issue is that it has maps and tables that provide useful information about individual programs. In this year's issue, we have deliberately avoided duplicating maps shown in the previous year, because most funding patterns do not change that much from year to year. By referring to maps and figures from this year's and last year's issues together, a more complete picture is revealed about the distribution of development funding in rural America.

A list of the contents of the 1996 Federal Programs *RCAT*, together with the figures and tables, is provided to aid the reader in identifying articles and figures of interest.

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ERRATA

In our 1996 *RCaT* article on General Development Assistance, the map (fig. 3) showing State funding amounts per nonmetro person for the State/Small Cities Community Development Block Grant (CDBG) program, and the text associated with this program, were misleading. Our underlying assumption in making this map was that the State/Small Cities program provided funding mainly to nonmetropolitan areas, hence dividing funding by nonmetro population would show the degree of assistance given to nonmetro areas within each State. This was an incorrect assumption.

According to the Department of Housing and Urban Development (HUD), which administers these programs, significant portions of metropolitan areas, including metro places that are not a part of large urban cities or heavily populated urban counties, receive their CDBG assistance through the State/Small Cities program. In 1994, about 102 million people were eligible for this program, almost double the 53 million nonmetro population. In some States, such as in the Northeast (New Jersey, Rhode Island, Massachusetts, Connecticut, Pennsylvania, New York, and Maryland), the Midwest (Ohio, Indiana, Michigan), the South (South Carolina, Louisiana, Florida, and Texas), and the West (California), the eligible metro population for these programs exceeds the nonmetro population by ratios greater than 2:1.

Thus, while most of the grantees of these programs may still be considered rural, our map overstated the extent that nonmetro populations benefited from the program and was misleading in suggesting that nonmetro residents in the Northeast and Midwest benefited disproportionately.

HUD also noted that the per capita State amounts shown in fig. 2 were in some cases less than the funds allocated to these States. This discrepancy may reflect the different accounting bases used by Census (the data we used in the maps) and HUD's data on funding allocations. Nevertheless, the overall geographic pattern we showed in fig. 2, should still hold, indicating that rural States tend to benefit more than other States from this program.

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Rural Conditions and Trends

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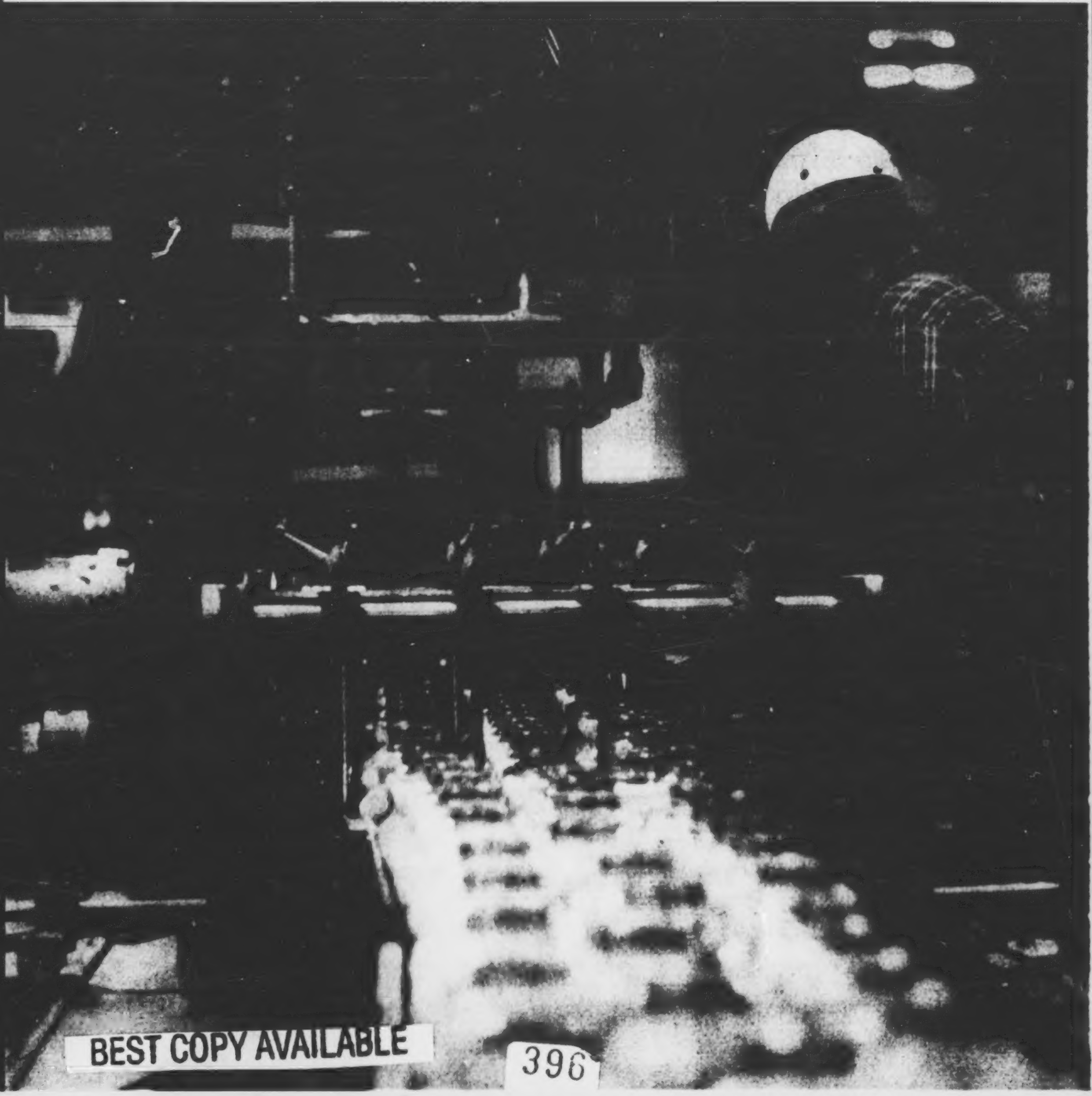
Socioeconomic Conditions



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1997, Vol. 8, No. 2

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Rural Areas Continue To Benefit from the Economic Expansion

By many measures rural economies continue to experience the benefits of economic expansion. In particular, rural labor markets have been tight, demand for rural workers strong, and wages have risen. However, income levels continue to be lower for rural households than for urban, and rural areas experience higher poverty rates than urban areas.

This issue of *Rural Conditions and Trends* (*RCaT*) presents the annual review of socioeconomic well-being of rural areas in the United States. The last time *RCaT* reported on socioeconomic conditions and trends was in 1996 (Vol. 7, No. 3). In addition to the usual indicators of well-being that have been published in the past issues, this issue of *RCaT* includes several facets of rural well-being that either have not previously been reported on, or have not been written about in some time: multiple jobholding, the working poor, the elderly, immigrants, births to unmarried mothers, and housing. We are pleased to resume publishing the Current Population Survey unemployment rates for metro and nonmetro areas. This issue also includes discussion of long-run trends in personal income, population, and farm operator household income. Some of the earlier appendix tables, such as per capita income by residence, which are usually included here, are not included in this issue. Because of the early timing of this issue, we do not yet have an additional year of data to report. Updates of those appendix tables are planned for future issues of *RCaT*.

The Socioeconomic Conditions issue of *RCaT* is published in order to provide data and analysis on various indicators of rural well-being. Although most of the data used here originates from other government agencies, many of the indicators for metro/nonmetro are published only by ERS. Because rural areas have historically lagged urban areas by many measures, and indeed rural areas continue to lag in some measures, there is a need to monitor socioeconomic conditions by area of residence. Knowing how rural areas are different than urban areas is crucial in evaluating how policy changes such as welfare reform, the increase in the minimum wage, or immigration reform will affect rural areas.

Demand for Rural Workers Strong in the 1990's...

In 1990-91 the national economy was in recession. Some analysts feared that rural areas would bear the brunt of the recession, as had happened during the recessions of 1980-82. Instead, rural economies weathered the downturn better than urban ones, and showed strong growth in the first 2 years of the expansion. Rural areas continue to show solid economic performance by several measures.

The most dramatic story is in the rural labor market. Annual average employment growth was 1.6 percent in nonmetro areas over 1990-94, twice the annual average for urban areas (fig. 1). A total of 1.4 million nonmetro jobs were added during the recession and the first 2 years of the expansion. In 1994 nonmetro job growth was especially strong at 2.8 percent, and in particular, the nonmetro West enjoyed a 4.5-percent increase in jobs. Over 1994-96, the rate of growth of nonmetro jobs averaged 1.3 percent, while metro areas finally caught up with an annual growth rate of 1.7 percent. An additional 600,000 jobs were added in nonmetro areas during these 2 years. Moreover, unemployment in nonmetro areas has been low. In 1996, the nonmetro unemployment rate was 5.6 percent, about the same as the metro rate, 5.4 percent.

The rural employment growth experience of the 1990's is in sharp contrast to that of the 1980's. After the recessions of 1980-82, rural areas did not catch up to urban areas until 1988. ERS research found that it was not the 1980-82 recessions themselves that hit rural labor markets so hard, but the particular financial market conditions of the mid-1980's—the high value of the dollar and high interest rates. The rural labor market is more sensitive to exchange rate movements and appears more export-dependent than urban areas. The high levels of exports that have been maintained in the 1990's have contributed to the tight rural labor markets.

The tighter nonmetro labor market translated into higher wages for workers. Nonmetro real earnings increased 1.8 percent over 1990-96, while metro earnings fell slightly.

Wage inequality declined in nonmetro areas, while metro areas were experiencing an increase in wage inequality. Another sign of strong demand for nonmetro workers is the rate of multiple jobholding, which is higher in nonmetro areas.

In the farm sector, too, we also find a strong labor market. The number of hired farmworkers in 1996 increased to the highest level seen in the 1990's, 906,000. Wages were up as well. Weekly real earnings for full-time farmwork—one of the lowest-paying occupations in the U.S. economy—were up 5.6 percent since 1994, to $280 in 1996.

Another indicator of the economic strength of rural areas in this expansion is that median household income increased by 2.9 percent from 1994 to 1995, to $27,776. In addition, median real personal income for rural areas increased over the 1990's.

The strong rural employment news is matched by population trends: the nonmetro population grew by about 6 percent during 1990-96. Half of the population increase was due to a net inflow of 1.5 million people from metro areas. Because the incomes of nonmetro inmigrants were greater than the incomes of nonmetro outmigrants, rural per capita income grew over 1992-95. This trend is particularly striking in high-amenity counties such as in the Pacific and intermountain West, the Appalachians, the Ozark-Ouachita Plateau, the Upper Great Lakes, and rural New England.

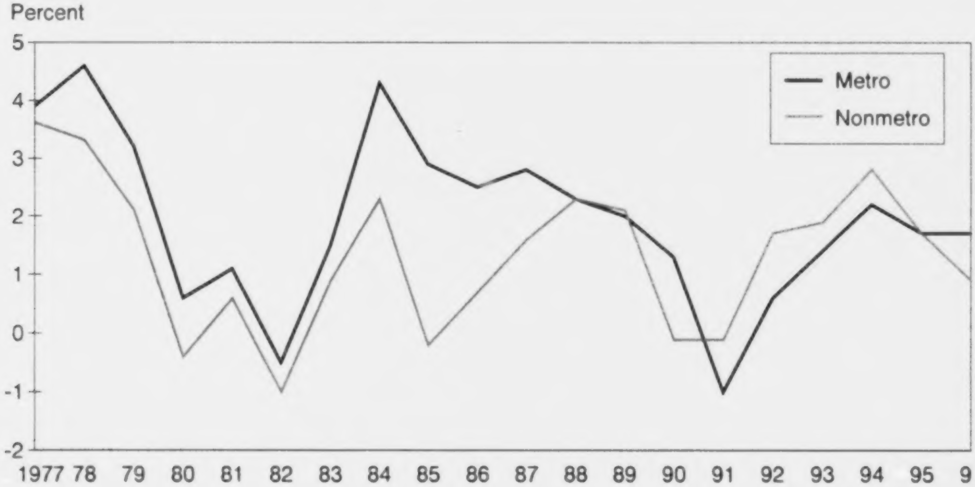
. . .However Rural Incomes Continue To Be Less than Urban

Despite the recent positive economic signs, rural areas continue to face challenges. Rural median household income is only about 77 percent that of urban areas. In particular, median income of rural Black households and female-headed households is only about half of the rural median. The poverty rate in rural areas continues to be higher than for urban, 15.6 percent for rural versus 13.4 percent urban. The poverty rate in the rural South is 19.2 percent, and over half of the rural poor live in the South. Of particular concern is the finding that rural workers are more likely to be below or near the poverty line. The fact that work does not necessarily lift a family out of poverty is especially true in rural areas. *[Karen S. Hamrick, 202-219-0789 (after October 24, 202-694-5426), khamrick@econ.ag.gov]*

Figure 1

Employment growth, 1977-96

Nonmetro employment growth surpassed metro in the 1990's



Source: Calculated by ERS using Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

U.S. Economy Moderates in 1997

The U.S. economy had a strong showing in 1996 and the first half of 1997 with low unemployment and low inflation. Continued moderate economic expansion is expected to benefit rural areas due to growth in employment and higher real wages.

The United States finished its fifth year of economic expansion with few signs of weakness outside of the trade sector. The Federal Reserve responded to the general weakness in the economy in late 1995 and early 1996 by lowering the Federal Funds rate—the overnight rate at which banks lend money to each other to cover reserve requirements—by 50 basis points; that is, 0.5 percentage points. As a result, the yield on 3-month Treasury bills averaged 5.0 percent in 1996, down from the 5.5-percent yield of 1995. The low interest rate and strong consumer and business spending resulted in increased Gross Domestic Product (GDP) growth. GDP growth for the year was a moderate 2.5 percent.

Despite a sharp surge in energy prices in 1996, accelerating inflation did not materialize. Crude oil and industrial natural gas prices both rose 35 percent from November 1995 to November 1996. This energy price increase coupled with sharp food price increases triggered a 2.5-percent rise in producer prices—up from the 1.7-percent rise of 1995. Nevertheless, broader inflation did not accelerate and consumer prices rose at only a 2.9-percent annualized rate, up only slightly from the 1995 rate of 2.8 percent. In fact, the GDP deflator—a measure of inflation over the entire economy—rose only 2.1 percent, down from the 2.5-percent rise of 1995.

The Labor Market Continued To Tighten Throughout 1996

The unemployment rate steadily dropped over the year, with an annual rate of 5.4 percent; 2.8 million more workers were employed at the end of 1996 than at the end of 1995. The labor force grew by 2.6 million as individuals joined or rejoined the labor force. The labor force participation rate increased as a larger share of the population was in the labor force. Several regions were reporting tight labor markets. Real wages unambiguously increased for the first time in the recovery from the recession that began in summer 1990 and ended in early 1991. However, they did not match recent productivity gains. The real wage increases allayed concerns at the beginning of the year that consumer spending would soften.

Low Unemployment, Low Inflation, and the Federal Reserve

The joint good news of low unemployment and low inflation has surprised analysts for the last year. Typically, as unemployment declines, labor markets tighten and wages are bid up. Larger wage increases historically have triggered rising inflation since wages and benefits are the largest component of business costs. The Federal Reserve looks closely at unemployment rates as an indicator of labor market tightening in monitoring inflationary pressures.

The Federal Reserve refrained from raising the Federal Funds rate over 1996 despite the declining unemployment rate. However, inflation did not accelerate. One reason is that overall real compensation increases have been less than productivity gains (fig. 1). Employers could afford to pay slightly more for workers because they were producing more. Another part of the story is that some labor markets—regional markets such as the Midwest and specific occupational markets such as the one for computer specialists—have experienced noticeable wage increases, but others, such as manufacturing, have not. Average real wage increases over the economy were small but, for the first time in the recovery, were positive by all measures.

1997 So Far and Outlook

The U.S. economy experienced spectacular real GDP growth in the first quarter of 1997, at an annualized rate of 5.9 percent—an increase of $101 billion. Fueling the first-quarter growth was an increase in real consumer spending of 5.6 percent, led by a nearly 19-percent increase in spending on consumer durables. Mild weather played a large role in boosting consumer durable spending. Business fixed investment also had a strong showing with an annualized increase of 11 percent. Business inventory accumulation added $31 billion to real GDP. Unemployment continued to decline and inflation was low.

Economic growth is expected to moderate from the very fast pace of the first quarter. The combination of low unemployment and low inflation will likely continue, although monthly inflation and unemployment rates will be somewhat higher in the second half of the year. Moreover, the trade deficit is expected to increase with a sharp increase in demand for imports largely to meet growth in the demand for nondurable goods. This increased import demand is largely due to a delayed reaction to a higher valued U.S. dollar in 1996.

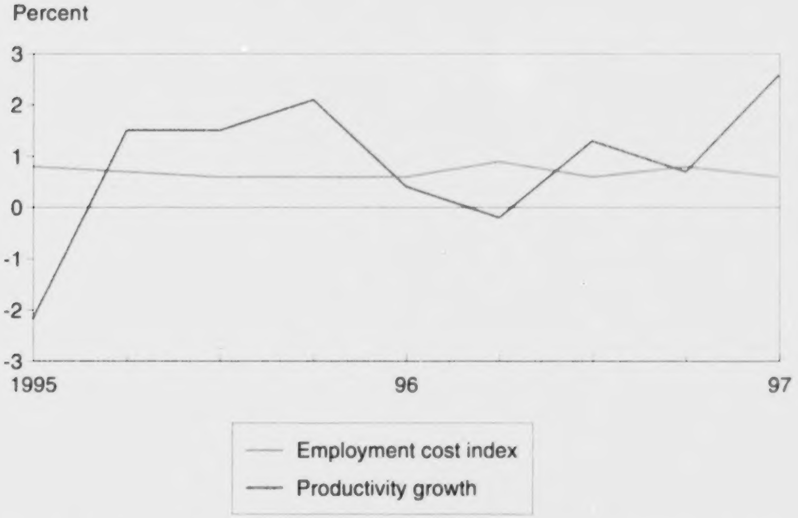
The prospects for continued low inflation are excellent. The producer price index fell January through May. The 2.6-percent growth in nonfarm labor productivity in the first quarter, the modest recent increases in the Employment Cost Index, and recent high profit levels mean that employers can well afford moderate real wage increases. The tighter labor market will almost ensure that higher wages will have to be paid. Although capital utilization rates have increased recently, they are far from levels that will trigger high inflation.

The unemployment rate will continue to be relatively low through the year, although GDP growth will moderate. The tight labor markets will result in higher real wages. Good disposable income growth from increased real wages will support consumer spending growth. Larger consumer spending on services and nondurables such as clothing and food will mainly drive the moderate GDP growth. In addition, exports are likely to be strong over the coming year. Foreign demand for U.S. products is expected to increase as trading partners' GDP growth improves. However, the strong consumer demand, in the context of a strong U.S. dollar, will also fuel increased imports, so the net trade deficit is expected to increase somewhat, thus moderating GDP growth.

Figure 1

Productivity growth and compensation cost growth

Productivity growth has exceeded compensation cost growth over most of the last 2 years



Source: Employment Cost Index for compensation, all civilian workers, seasonally adjusted, 3-month percent change; and output per hour, nonfarm business, seasonally adjusted, percent change from previous quarter at annual rate, from Bureau of Labor Statistics.

Growth in Manufacturing and Exports To Benefit Rural Areas

The Federal Reserve raised short-term interest rates in March to prevent a surge of inflation in 1998, and may raise them again later this year. But long-term interest rates are likely to average about what they did in 1996. Since U.S. interest rates are relatively high compared with Germany and Japan, the dollar will remain strong throughout 1997. Banks appear to have plenty of money to lend at relatively low rates, supporting small manufacturers, rural service businesses, and farming.

Manufacturing, which had strong growth in 1996 and early 1997, will moderate in the second half of 1997 as domestic growth slows. This moderate growth should benefit rural areas since manufacturing is an important employer of rural workers. The unit labor costs of American manufacturers, even at the current value of the dollar, are lower than those of Japan and Germany (except for vehicles and vehicle parts).

ERS research suggests that rural areas are more export-dependent than urban areas, so the robust demand for U.S. exports should result in a favorable employment situation in rural labor markets. Although not as high as in 1996, farm income will be quite good in 1997. The rural service sector, particularly that supporting agriculture, should be strong. The expected continued tightness in the service and manufacturing labor markets and the scheduled boost in the minimum wage should result in higher real wages in rural areas in 1997. *[Data as of July 1, 1997. David A. Torgerson, 202-501-8447 (after October 31, 202-694-5334), dtorg@econ.ag.gov; and Karen S. Hamrick, 202-219-0789 (after October 24, 202-694-5426), khamrick@econ.ag.gov]*

Employment Growth Rates Converge for Metro and Nonmetro Areas

Employment growth and other labor market indicators suggest that the metro United States experienced somewhat more robust economic expansion than the nonmetro United States in 1995-96, after several years in which the nonmetro United States had led the expansion. Demographic and geographic clusters of unemployment account for a large fraction of the nonmetro unemployed.

From 1990 to 1994, nonmetro employment grew at twice the rate of metro employment, according to data from the Bureau of Labor Statistics' Local Area Unemployment Statistics (LAUS). However, in the past 2 years, nonmetro growth has slowed, while the metro growth rate has accelerated and now exceeds the nonmetro rate. From 1995 to 1996, metro employment grew 1.7 percent while nonmetro employment grew 0.9 percent.

At the regional level, employment growth has accelerated in metro areas in all four Census regions since the early 1990's, while nonmetro employment growth accelerated only in the Northeast (table 1).

Growth Rate Differentials Across Regions and County Types Narrow

Overall, regional and metro-nonmetro disparities in employment growth appear to be slight at this point in the economic expansion. Employment growth rates for 1995-96 ranged from 0.7 percent in the nonmetro South to 1.9 percent in the metro South and metro West (fig. 1 and appendix table 1). This spread is modest compared with the range seen just 2 years earlier, when estimated employment growth was as low as 0.1 percent in the nonmetro Northeast and as high as 4.5 percent in the nonmetro West.

Past differences in employment growth rates across other county classifications also seem to have declined. The 0.9-percent 1995-96 employment growth rate for nonmetro counties was nearly the same for counties both adjacent and nonadjacent to metro areas, while the corresponding 1.7-percent growth rate for metro counties was nearly the same in the core counties of large metro areas as it was in other ("noncore") metro counties (appendix table 1). While some differences in growth rate by county economic type do persist for nonmetro counties, these differences have also generally declined, as growth rates have fallen rapidly since 1994 for several county types that were then growing particularly rapidly—including Federal lands, service-dependent, and farming counties—while declining more gradually for some county types that were growing more slowly—such as mining counties and government-dependent counties.

Nonmetro Unemployment Is Geographically Dispersed, but Clusters of Unemployment Are Substantial

Overall, there were about 1.7 million nonmetro unemployed in 1996. If unemployment rates in all high-unemployment counties (those with unemployment rates above the U.S.

Table 1

Metro and nonmetro employment growth rates by region, 1990-94 and 1994-96

Metro employment growth rates have accelerated since 1994, and now exceed nonmetro growth rates in three of four regions

	Nonmetro		Metro	
Region	1990-94	1994-96	1990-94	1994-96
	Annual percentage growth rates			
Northeast	-0.2	1.3	-0.8	1.1
Midwest	1.8	1.2	1.2	1.5
South	1.5	1.3	1.5	2.0
West	2.6	1.7	0.7	2.1
U.S. average	1.6	1.3	0.8	1.7

Note: These growth rates are calculated from annual average employment levels for 1990, 1994, and 1996.
Source: Calculated by ERS using Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

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average) had been reduced to the U.S. average, this number would have fallen by about 0.4 million. The distribution of this 0.4 million may be viewed as the geographic component of any nonmetro unemployment problem. Those who are unemployed in areas of relatively low unemployment, or who would remain unemployed even if unemployment in their areas fell to average levels, also suffer economic hardship, but their situations reflect macroeconomic or broad institutional factors rather than geographically specific circumstances. (However, geographic concentrations of unemployment are likely to reflect geographic concentrations of individuals with characteristics that predispose them to unemployment, as well as characteristics of the locations themselves.)

Figure 2 illustrates the distribution of these 0.4 million "location-specific unemployed." Overall, more than 1,200 U.S. nonmetro counties had unemployment rates above the U.S. average in 1996, but just 240 of these counties accounted for more than 60 percent of the location-specific unemployed. About 38 percent of the nonmetro location-specific unemployed are concentrated in seven Western and three Southern States (Alaska, Arizona, California, Hawaii, New Mexico, Oregon, Washington, Louisiana, South Carolina, and West Virginia), which together have less than 15 percent of the nonmetro labor force. The other 62 percent are scattered among 37 other States, including 29 with more than 1,000 location-specific unemployed persons each. Some nonmetro areas where high unemployment rates combine with relatively large population concentrations to yield substantial concentrations of the location-specific unemployed include Imperial County, California; the South Carolina-North Carolina border area; the Kentucky-Virginia border area; and parts of the Rio Grande Valley in Texas.

Other Labor Force Indicators Show Relative Gains for Metro Areas in 1996, but Indicate Renewed Nonmetro Growth in 1997

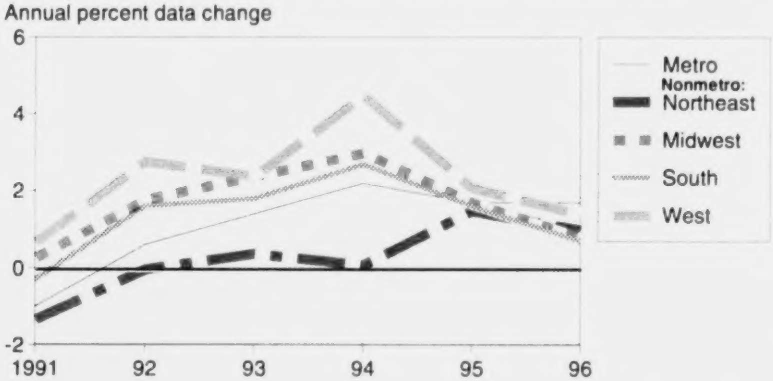
Current Population Survey (CPS) data on employment and unemployment in nonmetro areas are now available again, but the 1994 redesign and other changes limit comparability with earlier data (see appendix).

The CPS data that are available appear to match the LAUS data in showing metro areas outpacing nonmetro areas in employment growth in 1996. From the first quarter of 1996 to the first quarter of 1997, the labor force participation rate rose 0.7 percentage points in metro areas and the employment/population ratio rose 1.0 percentage point (table 2).

Figure 1

Estimated employment growth by year, 1990-96, metro average and four nonmetro regions

Nonmetro growth in the 1990's has generally been fastest in the West and slowest in the Northeast, but nonmetro growth rates have converged in the past 2 years



Source: Calculated by ERS using Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

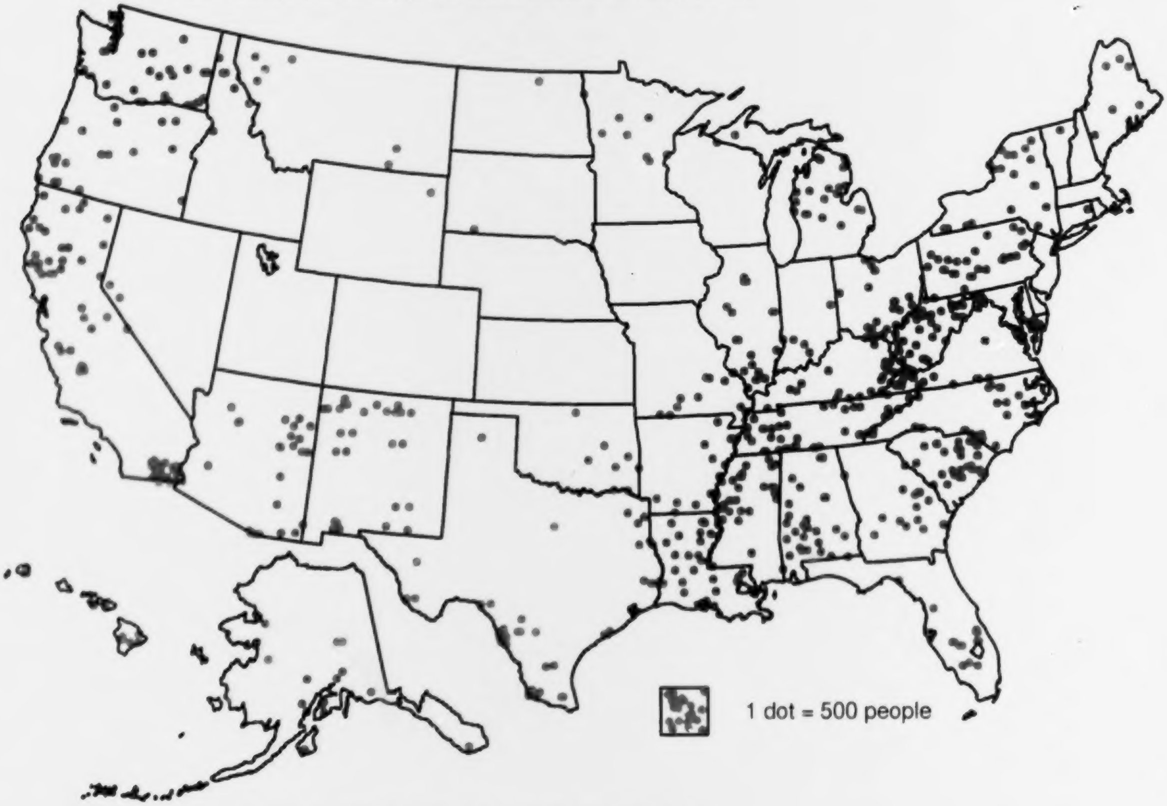
The corresponding indicators in nonmetro areas fell 0.2 and 0.3 percentage points. Metro area unemployment fell 0.4 percentage points over the same period while nonmetro unemployment rose 0.1 percentage points.

However, figures for the second quarter of 1997 suggest a renewed acceleration of nonmetro growth. Between the first and second quarter of 1997, estimated nonmetro labor force participation rose by 1.7 points, and the estimated employment/population ratio rose by 2.6 points. These values are not seasonally adjusted, as we do not have enough quarters of data since the CPS redesign to compute seasonal adjustments; however, both values are well in excess of typical first-to-second-quarter increases, and much greater than the corresponding metro changes. Similarly, while nonmetro unemployment normally falls substantially between the first and second quarter, the 1.5-point decline in 1997 is larger than typical, also suggesting increased vigor in the nonmetro economy. Strength in

Figure 2

Nonmetro counties with unemployment above U.S. average

Clusters of location-specific unemployment are found in many States



Source: Calculated by ERS using data from the Bureau of Labor Statistics.

the manufacturing sector, which accounts for a larger share of employment in nonmetro areas, may have contributed to this vigor.

Unemployment Rates Vary Widely with Demographic Characteristics

CPS data for 1996 show that historical differences in unemployment rates across demographic groups persist. Unemployment rates of 8 percent or more were seen for labor force members under 25, for Blacks and Hispanics, and for those with less than a high school diploma (fig. 3). In contrast, unemployment rates were under 4 percent for those over 45 and for college graduates. Data for the first half of 1997 show little change in these patterns. *[Lorin Kusmin, 202-219-0550 (after October 24, 202-694-5429), lkusmin@econ.ag.gov]*

Table 2

Labor force indicators, metro and nonmetro areas, first quarter 1996 and first quarter 1997

Labor force indicators from the Current Population Survey suggest that nonmetro labor markets were relatively stable during 1996, while expansion continued in metro labor markets

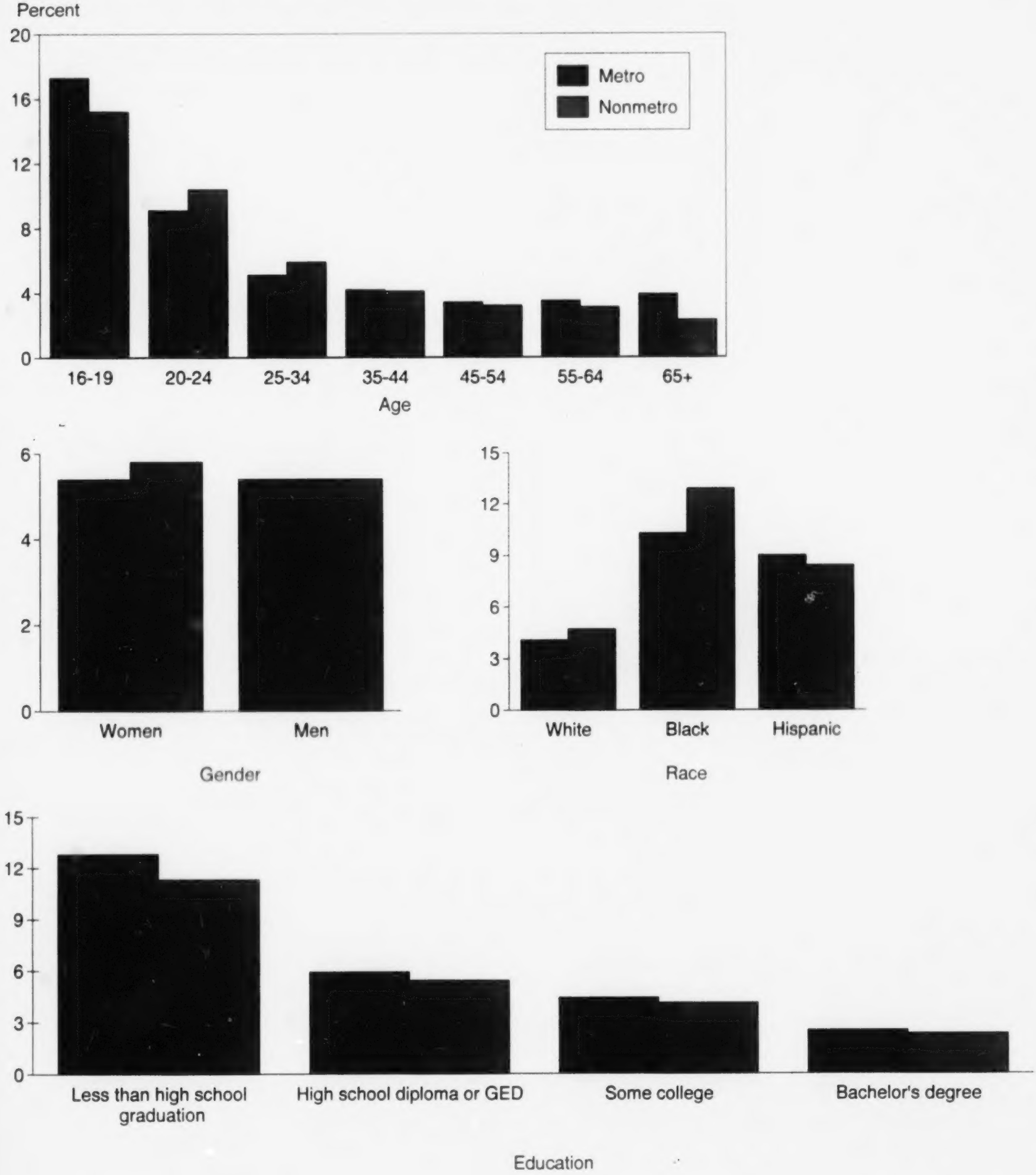
	First quarter 1996	First quarter 1997	Change
	Percent	Percent	Percentage points
Metro:			
Labor force participation rate	66.7	67.5	0.7
Employment/population ratio	62.7	63.7	1.0
Unemployment rate	6.0	5.6	-0.4
Adjusted unemployment rate	9.6	9.0	-0.7
Nonmetro:			
Labor force participation rate	63.7	63.5	-0.2
Employment/population ratio	59.7	59.4	-0.3
Unemployment rate	6.3	6.5	0.1
Adjusted unemployment rate	10.2	9.9	-0.2

Note: Change may not equal difference between columns due to rounding.
Source: Calculated by ERS using data from the Current Population Survey; not seasonally adjusted.

Figure 3

Metro and nonmetro unemployment rates by demographic group, 1996

Metro and nonmetro unemployment rates are similar for most demographic groups



Source: Calculated by ERS using data from the Current Population Survey.

Employment Growth and Unemployment Rate Often Identify Different Counties As Prosperous

Because it is easily understood and widely available, the unemployment rate is frequently used as an indicator of overall economic performance. At the national level, periods of strong employment growth are typically associated with lower unemployment. However, the unemployment rate is only one measure of labor market conditions. To get a more complete picture, both the unemployment rate and employment growth must be considered.

Employment growth and low unemployment are often cited as indicators of prosperity or goals of economic policy. However, they are not closely related at the county level. Many counties combine high-employment growth with high unemployment; many others, particularly in the Midwest, combine low-employment growth with low unemployment.

The Relationship Between Employment Growth and a Low Unemployment Rate Is Uncertain at the Local Level

Employment growth and a low unemployment rate are often bracketed together as expected joint outcomes of effective economic policies. However, at the local level, the relationship between employment growth over time and reduced unemployment may be weakened by migration and changes in commuting flows. Thus, some communities may experience persistently high unemployment with rapid employment growth, as commuters and migrants rather than local residents fill new jobs. Indeed, high-employment growth may attract would-be workers from other areas and so increase local unemployment levels. Further, communities may have low unemployment despite little or no employment growth, as workers migrate or commute elsewhere for employment.

Counties That Combine High-Employment Growth Rates and High or Rising Unemployment Are Numerous and Widespread

As figure 1 shows, the geographic distribution of low-unemployment-rate counties is quite different from the distribution of high-employment-growth counties. Many counties, particularly in the Midwest and Great Plains, had below-average unemployment rates in 1996 despite below-average employment growth over the previous 6 years. In much of the rural Midwest, high rates of outmigration—particularly by young adults, who typically have relatively high-unemployment rates while they seek a niche in the labor market—keep unemployment rates very low despite the lack of local employment opportunity. Further, in those areas where a large share of the working-age population lives on farms, reported unemployment rates are likely to be depressed, as farm residents who are working on their farms will not be reported as unemployed, even if they receive little income from their farms and are seeking nonfarm employment. Many other counties, widely distributed across the South, West, and upper Midwest, combined above-average employment growth with persistently above-average unemployment. In general, the map shows strong regional patterns in unemployment rates, while employment growth rates vary more from one county to the next.

Even when we compare employment growth with the change in unemployment rates between 1990 and 1996, we can see that in many instances they do not move together (fig. 2). Counties where unemployment rates fell between 1990 and 1996 despite low-employment growth can be found in all regions of the country. Counties where unemployment rates were stable or rose despite above-average employment growth are also numerous and widely dispersed, with some concentration in the Mountain West, and some smaller clusters elsewhere (Nebraska, Tennessee, eastern Texas-western Louisiana).

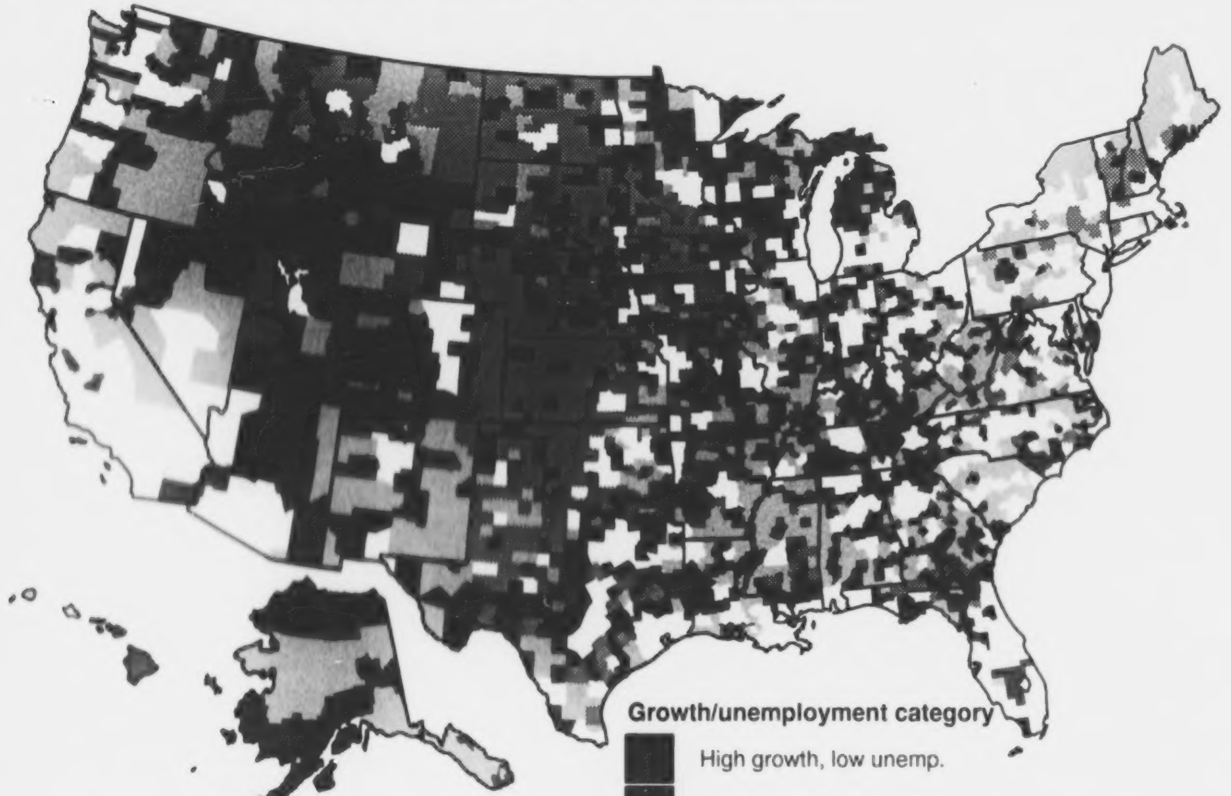
A tabular comparison of nonmetro counties by employment growth and unemployment rate shows that out of 2,299 nonmetro counties analyzed, just 625 fit a profile of robust employment conditions, with above-average growth rates and below-average unemployment rates, while another 630 combined below-average growth rates and above-average unemployment rates for a consistent picture of weak employment conditions (table 1).

On the other hand, more than 1,000 counties (about 45 percent of the total), failed to fit either profile, instead combining high-employment growth with high unemployment, or low-employment growth with low unemployment. Nor were these sparsely populated, marginal counties; together they accounted for more than 41 percent of the nonmetro labor force. In addition, within the larger class of high-unemployment counties, the average unemployment rate was just about as high for those with high-growth rates as for those with low-growth rates; while among low-unemployment-rate counties, the unemployment rate for low-growth counties was only slightly higher than for high-growth counties.

Figure 1

Employment growth 1990-96 versus unemployment rate, 1996

Many areas of high employment growth are also areas of high unemployment



Note: low growth=up to 1.28 percent/year; high growth=over 1.28 percent/year; low unemployment=up to 5.67 percent; high unemployment=over 5.67 percent.

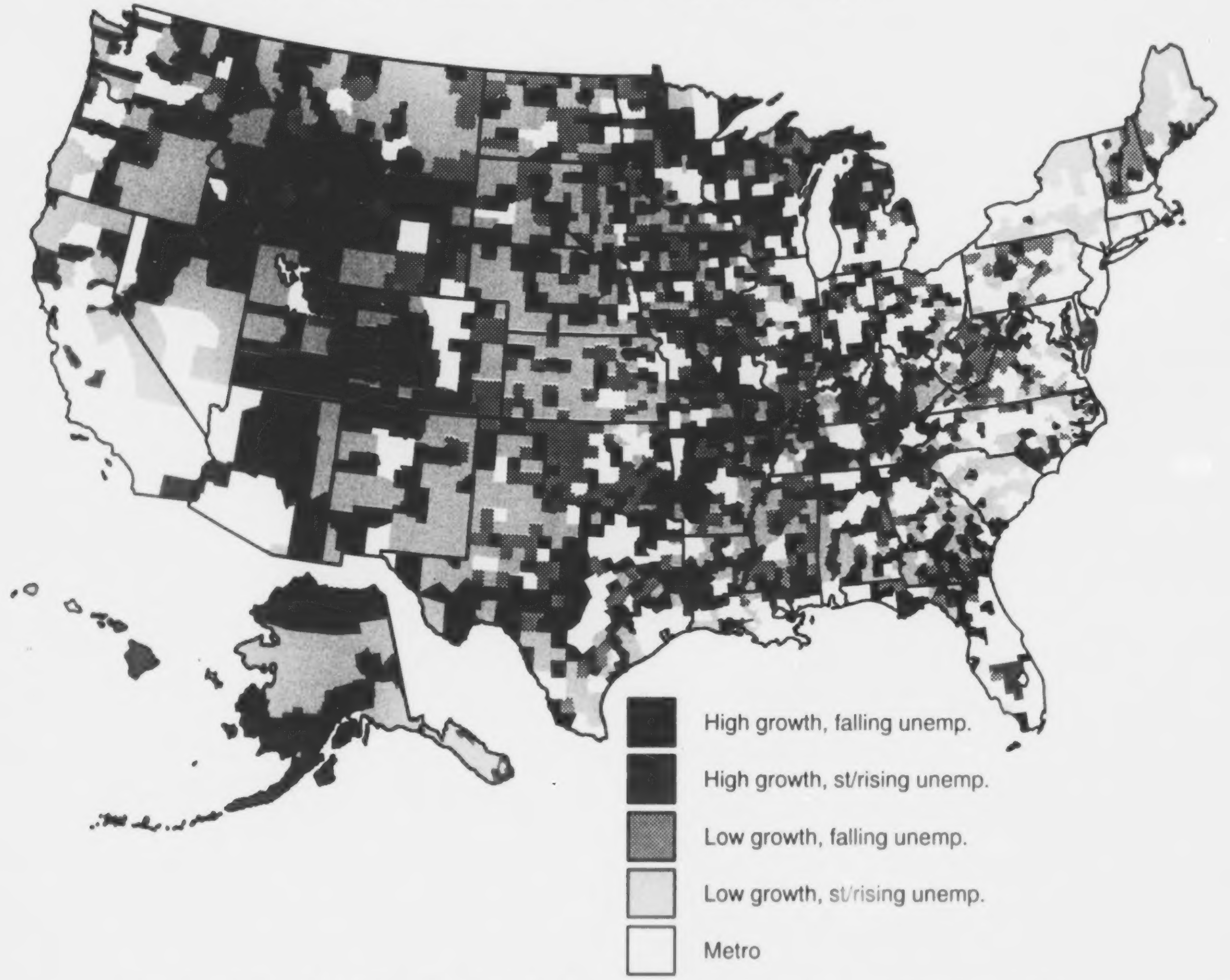
Source: Calculated by ERS from BLS Local Area Unemployment Statistics.

When 1990-96 employment growth rates are instead compared with the 1990-96 change in unemployment rate, we find that high rates of employment growth were accompanied by stable or rising unemployment rates in 436 counties, while another 429 counties combined low (or negative) rates of employment growth with declining unemployment. Together these two groups contain more than one-third of the nonmetro labor force (table 2). Thus, while the pattern that we might expect—faster employment growth associated with falling unemployment, and slow or negative employment growth found together with rising unemployment—does fit the majority of counties, it is far from universal. *[Lorin Kusmin, 202-219-0550 (after October 24, 202-694-5429), lkusmin@econ.ag.gov]*

Figure 2

Employment growth versus unemployment rate change, 1990-96

In some counties, unemployment rates rose even with strong employment growth


High growth, falling unemp.
High growth, st/rising unemp.
Low growth, falling unemp.
Low growth, st/rising unemp.
Metro

Note: Low growth=up to 1.28 percent/year; high growth=over 1.28 percent/year; falling unemployment=decline of 0.07 percentage points or more; stable/rising unemployment=decline less than 0.07 percentage points or increase.

Source: Calculated by ERS from BLS Local Area Unemployment Statistics.

Table 1

Nonmetro counties by growth-unemployment class

Many counties with high employment growth rates during the 1990's continue to have above-average unemployment rates

Type of county	Number of counties	Civilian labor force, 1996	Unemployment rate, 1996	Annual employment growth rate, 1990-96
		Thousands	Percentage points	Percent
High-employment growth, low-unemployment rate	625	8,331.7	4.04	2.63
Low- (or negative) employment growth, high unemployment	630	6,848.5	8.59	-0.03
High growth, high unemployment	526	6,481.1	8.58	2.51
Low growth, low unemployment	518	4,265.1	4.43	0.32
Total	2,299	25,926.4	6.44	1.47

Note: A few county-equivalents in Alaska have been excluded from this analysis because of boundary changes between 1990 and 1996.
Source: Calculated by ERS using Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

Table 2

Nonmetro counties by employment growth-unemployment change class

Many counties with high-employment growth rates during the 1990's nonetheless had stable or rising unemployment rates

Type of county	Number of counties	Civilian labor force, 1996	Change in unemployment rate, 1996	Annual employment growth rate, 1990-96
		Thousands	Percentage points	Percent
High-employment growth, falling unemployment rate	715	9,952.8	-1.52	2.62
Low-employment growth, stable or rising unemployment rate	719	6,780.6	1.62	-0.08
High-growth, stable or rising unemployment	436	4,860.0	1.49	2.50
Low-growth, falling unemployment	429	4,333.0	-1.26	0.40
Total	2,299	25,926.4	-0.09	1.47

Source: Calculated by ERS using Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

Nonmetro Multiple Jobholding Rate Higher than Metro

Multiple jobholding was higher in nonmetro areas than in metro areas in 1996. Low earnings forced many nonmetro workers to take more than one job to meet basic living expenses. However, nonmetro workers with high educational levels and well-paid jobs also had high rates of multiple jobholding.

In nonmetro areas 1.7 million workers held two or more jobs at the same time in 1996, a rate of 7.1 percent, according to data from the Current Population Survey (CPS). This compares with 6.3 million workers in metro areas (6.2 percent) for the same period. This is the first time metro and nonmetro multiple jobholding data have been available since 1991. Although CPS metro and nonmetro estimates prior to 1996 are not strictly comparable (see the article in the appendix on the redesign of the CPS), the nonmetro multiple job rate was 7.7 percent in 1989 and then fell to 7.4 percent in 1991. The metro rate was 6.0 percent in both 1989 and 1991.

During the 1980's, the multiple jobholding rate for the Nation increased significantly as an increased demand for labor and the need to make up for falling earnings pushed up the rate from 4.9 percent in 1980 to 6.2 percent in 1989. Most of this increase in multiple jobholding was among women. The number of women multiple jobholders doubled from 1.5 to 3.1 million between 1980 and 1989. Since 1989, the overall multiple jobholding rate has held steady around 6.2 percent.

CPS data from 1989 and 1991 show that the main reason given by nonmetro persons for working two or more jobs was financial. About 42 percent of nonmetro workers had two or more jobs in 1991 to meet household expenses or to pay off debts. This is little changed from 1989 when the share was 44 percent. Although the reason for working more than one job was not asked in 1996, data is available on multiple jobholding by earnings level. Nonmetro workers whose median weekly earnings were in the lowest quintile had the highest multiple jobholding rate (7.9 percent) (fig. 1). It is likely that low earnings is the reason that many nonmetro workers took on more than one job.

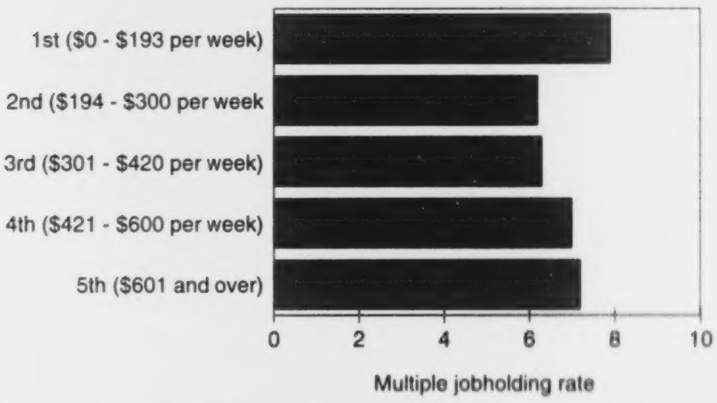
Multiple Jobholding Rate Highest Among College Graduates, Whites, and Ages 45 to 54

The percentage of nonmetro multiple jobholders increased with education (fig. 2). Only 3.8 percent of high school dropouts had multiple jobs, compared with 10.1 percent of workers with a 4-year college degree. Workers with high education levels may find it

Figure 1

Nonmetro multiple jobholding rate by earnings quintile

The multiple jobholding rate was highest in the 1st and 5th quintile earnings groups



Source: Calculated by ERS using data from the 1996 Current Population Survey.

easier to get a second job because they have more specialized skills and knowledge that are in demand. In addition, they may have a more flexible work schedule in their primary occupation, which gives them more time to work a second job. Workers with more education may also have financial reasons for moonlighting, although nonfinancial reasons may strongly affect their decision to work a secondary job. For example, a second job may provide experience needed to enhance a worker's primary occupation.

The multiple jobholding rate for nonmetro men was about the same as for women, 7.3 percent for men compared with 7.1 percent for women. Women comprised 46 percent of all nonmetro multiple jobholders. In metro areas, men and women also had about the same multiple jobholding rate, 6.0 percent for men compared with 6.1 percent for women.

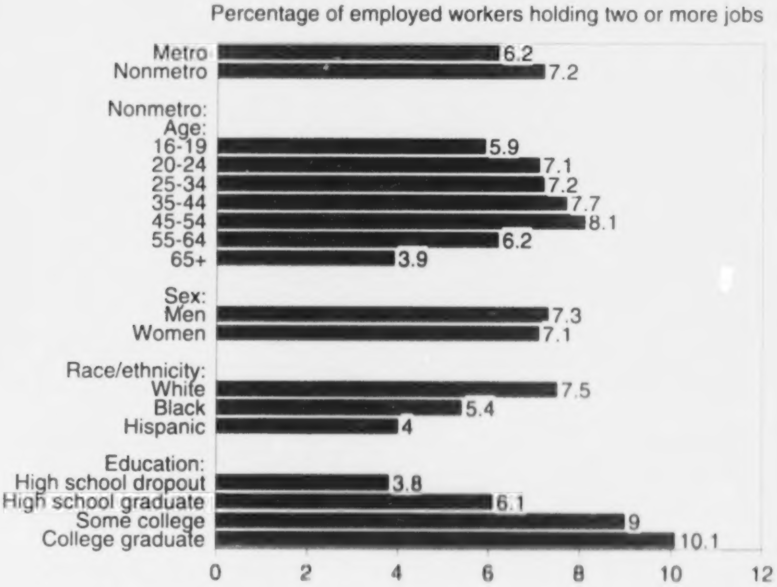
The moonlighting rate for nonmetro Whites was 7.5 percent, followed by Blacks at 5.4 percent, and Hispanics at 4.0 percent. Although Whites had the highest multiple jobholding rate, the average number of hours actually worked at all jobs among White multiple jobholders was a bit lower than for both Blacks and Hispanics: 49.6 hours per week compared with 50.9 hours for Blacks and 50.3 hours for Hispanics (appendix table 5).

The highest multiple jobholding rate was 8.1 percent for nonmetro workers ages 45 to 54. The multiple jobholding rate increased with each age group up to those workers 45 to 54 and then declined. The multiple jobholding rate for teenagers was 5.9 percent, followed by workers ages 20 to 24 at 7.1 percent, ages 25 to 34 at 7.2 percent, and those ages 35 to 44 at 7.7 percent. Metro areas, in contrast, showed workers ages 20 to 24 years with the highest multiple jobholding rate (6.8 percent), while those ages 25 to 34 and 35 to 44 were the same (6.5 percent). The lowest multiple jobholding rate among primary age workers was the 45- to 54-age group (6.3 percent) in metro areas.

Figure 2

Multiple jobholder rates by selected characteristics, 1996

Nonmetro multiple jobholding was slightly higher than metro



Source: Calculated by ERS using data from the Current Population Survey.

Professional Specialty Occupations Have Highest Multiple Jobholding Rate

Nonmetro workers whose primary occupations—the primary occupation is the one that the worker worked the most hours—are in professional specialty fields were the most likely to hold more than one job. Many of these occupations have flexible work schedules, or time off, which allows workers to take on other jobs. Nonmetro elementary and secondary school teachers were the most likely to hold a second job, with a rate of 12.1 percent. Teachers also accounted for the largest number of nonmetro multiple jobholders. Other professional specialty occupations such as health assessment and treatment (9.4 percent), technicians (11.2 percent), and college and university teachers (10.2 percent), had high multiple jobholding rates. Nonmetro workers in administrative support (7.7 percent), and police and firefighters (10.3 percent) also had high rates of multiple jobholding.

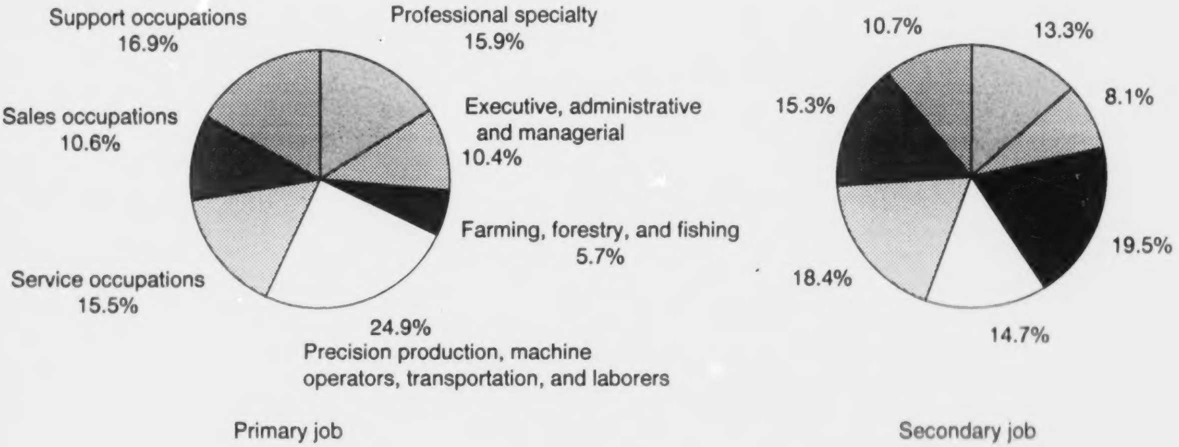
Most nonmetro workers took a secondary job in the same occupation, or in a field related to their primary job (fig. 3). The primary occupation with the highest percentage of multiple jobholders was precision production, machine operators, transportation, and laborers (24.9 percent). This group was followed by support occupations (16.9 percent), and professional specialty workers (15.9 percent). However, the largest percentage of secondary jobs was in farming (19.5 percent), services (18.4 percent), and sales (15.3 percent). Many of these secondary occupations are seasonal or low-paying jobs that supplement earnings to meet basic living expenses. Professional specialty occupations accounted for 13.3 percent of secondary jobs.

A large proportion of nonmetro workers, especially in blue collar occupations, were employed in farming, forestry, and fishing as their second job. Farming was the most common second job for multiple jobholders in protective service (20.0 percent); precision production and craft (41.7 percent); machine operators and assemblers (22.8 percent); transportation (36.7 percent); and handlers, cleaners, helpers, and laborers (32.7 percent).

Figure 3

Primary and secondary occupations for nonmetro mutiple jobholders, 1996

The highest percentage of secondary jobs were in farming, forestry, and fishing occupations



Source: Calculated by ERS using data from the Current Population Survey.

Northern Plains Have the Highest Rates of Multiple Jobholding

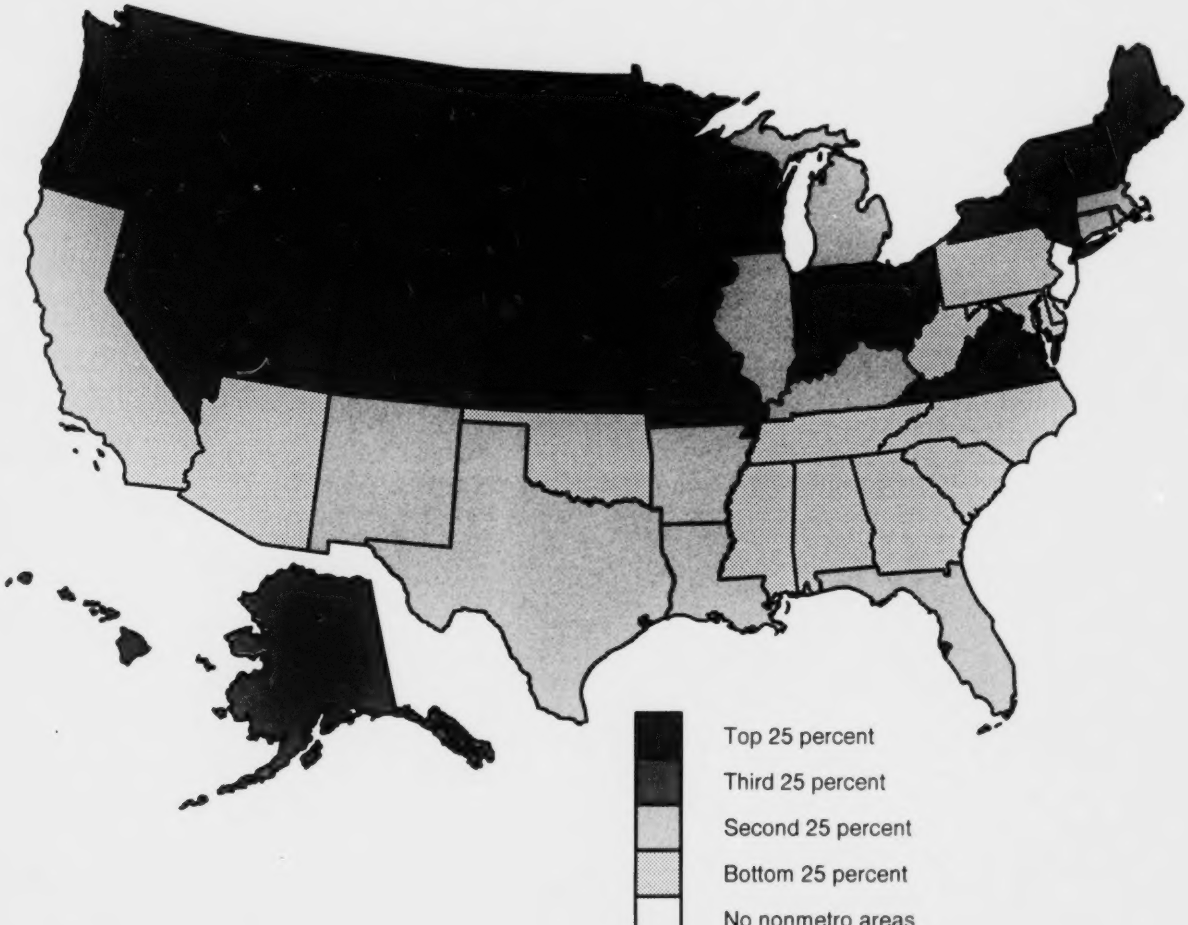
The highest nonmetro multiple jobholding rates were among the Northern Plains States (fig. 4). The multiple jobholding rate in these States was higher across all major occupational and demographic categories; a high proportion of low-paid seasonal agricultural jobs contributed to the high rate. Many of these States have high proportions of low-wage jobs, in addition they also have low rates of inmigration, creating conditions that might push up the multiple jobholding rate. The highest rates were found in Minnesota (11.7 percent), Wisconsin (11.5 percent), Nebraska (10.8 percent), Montana (10.5 percent), Kansas (10.5 percent), Iowa (10.0 percent), and South Dakota (10.0 percent).

The States with the lowest nonmetro multiple job rates were concentrated in the South. South Carolina had the lowest rate at 2.9 percent, followed by Arizona (3.1 percent), Tennessee (4.3 percent), and Georgia (4.4 percent). *[Timothy S. Parker, 202-219-0541 (after October 24, 202-694-5435), tparker@econ.ag.gov]*

Figure 4

Nonmetro multiple jobholder rate, 1996

Multiple jobholding is highest in the Northern Plains



Source: Calculated by ERS using data from the Current Population Survey.

Rural Earnings Edge Up in the 1990's

Rural real earnings rose slightly during 1990-96, a welcome change from falling earnings in the 1980's. Earnings change varied by region, with only the Midwest and South showing gains overall. Gains were widespread among many demographic groups, however, and especially among women. Overall, wage inequality has lessened slightly during the 1990's.

Real weekly earnings for rural wage and salary workers rose 1.8 percent between 1990 and 1996, from $413 to $420, according to data from the Current Population Survey (CPS). (All amounts are reported in 1996 dollars, deflated with the CPI-U price index.) The rise, while modest, contrasts sharply with a substantial decline in rural real earnings during the 1980's. Earnings for the United States as a whole were flat over the 1990-96 period, as real urban earnings fell slightly by 0.8 percent, from $535 to $530. Average weekly earnings for rural wage and salary workers in 1996 were 79 percent of the average weekly earnings for comparable urban workers, up 2 percentage points since 1990. The rural earnings upswing is yet another sign of the turnaround in rural economic conditions seen in the 1990's.

Data from the 1990 and 1996 Current Population Surveys are not strictly comparable, but the differences are unlikely to have fundamentally affected the earnings trends reported here. For more details on changes in the CPS during this period, see the appendix.

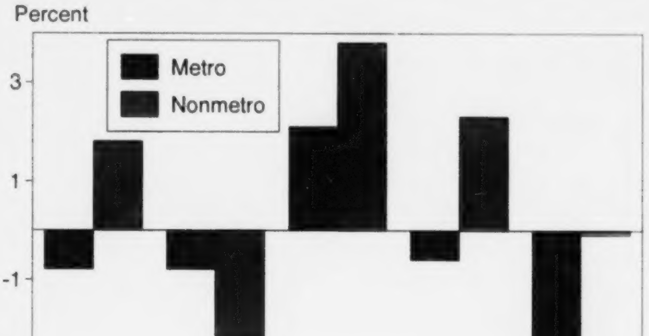
Earnings Growth Evident in the Midwest and South

The rural components of two of the four major Census regions posted gains in average weekly earnings during the 1990's, while real earnings in the urban portions of three regions declined (fig. 1). The rural Midwest enjoyed a 3.8-percent increase, to $421, followed by the rural South with a 2.3-percent gain (to $406). Meanwhile, earnings fell in the rural Northeast, although wages there are still the highest of the four regions ($449), and earnings in the rural West were unchanged ($439). The reasons for earnings stagnation in these two regions are probably quite different. The rural West has experienced relatively high levels of unemployment, partly due to high inmigration rates. Unemployment in the rural Northeast has been slightly lower than in the West in the past few years, but the region has added few new jobs, indicating sluggish demand. The rural Northeast is the only rural region that did not outperform its urban counterpart (see table 1 for dollar amounts).

Figure 1

Average weekly earnings change by region, 1990-96

Earnings in the nonmetro Midwest grew faster than in other regions



Source: Calculated by ERS using data from the 1990 and 1996 Current Population Survey.

Rural Women Lead in Widespread Gains across Demographic Groups

Gains were registered by nearly all segments of the rural workforce (table 1). Earnings growth rates were somewhat higher for Blacks and Hispanics than for Whites. The urban-rural differences for Blacks and Hispanics were notable, with declines in urban areas (-1.2 and -4.2 percent, respectively) and increases in rural areas (3.1 and 3.9 percent). While rural men saw no improvement, earnings gains were substantial for rural women (6.2 percent), who now have more schooling on average than rural men, and who continue to move into high-paying occupations more quickly. Real weekly earnings fell slightly for younger rural workers, but the decline was much smaller than among young urbanites.

Earnings Decline for Urban, but not Rural, High School Dropouts

The 1990's, like the previous decade, saw rising returns to college and advanced degrees for all workers ages 25 and older. The stories are quite different, however, for the rural and urban labor force. Real earnings for rural workers at all education levels rose modestly between 1990 and 1996, without the sharply rising returns to education observed in the 1980's (fig. 2). Meanwhile, the national trend toward higher returns continued, and was driven by changes in urban wage patterns. Urban workers who are not high school graduates experienced an 11.2-percent decline in real earnings, as workers with advanced degrees registered small increases. The large difference in outcomes for rural and urban workers without a diploma reflects several factors. Urban areas were hit harder by the 1990-91 recession, and its effects on the workforce lasted longer in urban than in rural labor markets. Since recessionary effects are often most acute among those with the least skills and education, the urban low-skill workforce was placed in "double jeopardy" during the early 1990's. In addition, immigration increased the relative supply of urban low-skill labor, and may have dampened wage pressures among both those without a diploma and younger workers as noted above.

Table 1

Average weekly earnings for selected groups, 1990 and 1996

The earnings of rural women rose, but fell slightly for men and the youngest workers

	Nonmetro			Metro			Nonmetro-metro ratio	
	1990	1996	Change	1990	1996	Change	1990	1996
	1996 dollars		Percent	1996 dollars		Percent	Percent	
Total	413	420	1.8	535	530	-0.8	77.2	79.2
Region:								
Northeast	460	449	-2.3	566	561	-0.8	81.3	80.0
Midwest	405	421	3.8	522	533	2.1	77.6	79.0
South	397	406	2.3	504	501	-0.6	78.8	81.0
West	439	439	-0.1	558	542	-2.8	78.7	81.0
Blacks	314	324	3.1	429	424	-1.2	73.2	76.4
Hispanics	320	333	3.9	407	390	-4.2	78.6	85.4
Whites	422	429	1.5	549	547	-0.5	76.9	78.4
Men	501	499	-0.5	637	622	-2.4	78.6	80.2
Women	314	333	6.2	420	431	2.6	74.8	77.3
Age:								
16-24	226	222	-1.8	273	247	-9.4	82.8	89.9
25-60	462	471	1.9	599	591	-1.3	77.1	79.7
over 60	348	355	2.0	476	470	-1.3	73.1	75.5

Note: Hispanics may be of any race.

Source: Calculated by ERS using data from the Current Population Survey earnings files.

The urban decline significantly narrowed the rural-urban earnings gap for workers without a diploma by 1996 ($326 rural vs. $339 urban). Once cost-of-living differences are accounted for, these workers may now find their purchasing power to be as high in rural as in urban areas, a possibility consistent with recent evidence that rural areas are gaining workers without a diploma through interregional migration. Growth in earnings for college graduates is also higher in rural than in urban areas. This is a welcome change from the 1980's, because rising urban wage premiums for college graduates were largely responsible for high rural outmigration rates among that group. As the urban-rural differences diminish, the transfer of human capital from rural to urban areas experienced in the 1980's should decline and perhaps reverse.

Wage Inequality Lessens in Rural Areas

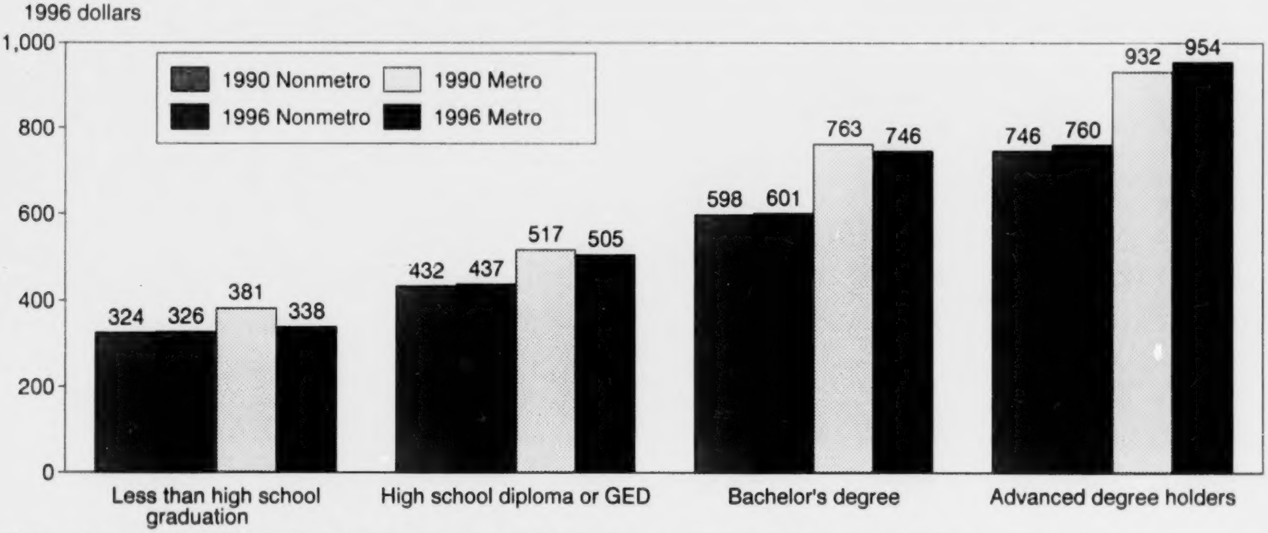
During the 1980's, wage inequality increased as real wages fell. In rural areas, this trend appears to have stopped. The variation in weekly earnings, measured by the spread between the best-paid and least-paid workers, dropped between 1990 and 1996 (table 2). The 10th percentile wage, which is the wage such that only 10 percent of all workers earn less than that amount, can represent low earnings. Similarly, the 50th percentile wage is a measure of typical earnings and the 90th percentile high earnings.

The earnings ratio of rural workers at the 90th earnings percentile to those at the 50th percentile remained about the same from 1990 to 1996. A slight decrease, however, was registered in the ratio of 50th percentile to 10th percentile workers, and thus, in the 90th-to-10th percentile ratio as well. In contrast, inequality in urban areas is greater than in rural areas, and has increased during the 1990's. The rural-urban difference is primarily a consequence of relatively high earnings among the best-paid urban workers. *[Robert Gibbs, 202-501-7975 (after October 24, 202-694-5423), rgibbs@econ.ag.gov]*

Figure 2

Average weekly earnings by education, ages 25 and over

Metro and nonmetro high school dropouts had similar earnings by 1996



Note: "High school diploma or GED" includes workers who attended college, but did not complete a 4-year degree.

Source: Calculated by ERS using data from the 1990 and 1996 Current Population Survey earnings files.

Table 2

Usual weekly earnings at select percentiles

Wage inequality dipped slightly between 1990 and 1996 for rural, but not urban, workers

	Nonmetro		Metro	
	1990	1996	1990	1996
	1996 dollars			
Percentiles:				
10th	114	119	149	142
50th	355	355	450	423
90th	769	769	1,008	1,018
Ratios:				
90:50	2.17	2.17	2.24	2.40
50:10	3.11	2.97	3.02	2.99
90:10	6.75	6.44	6.77	7.18

Source: Calculated by ERS using data from the Current Population Survey earnings files.

Rural Median Household Income Increases

Inflation-adjusted income to the average rural household increased almost 3 percent from 1994 to 1995. Rural median household income is highest in the Northeast and lowest in the South. Rural minorities and female-headed families continue to have very low incomes.

Inflation-adjusted median household income rose 2.9 percent in rural America from 1994 to 1995 to stand at $27,776 (fig. 1). This, along with a slight increase in the previous year, ended nearly a decade of stagnant or declining income for the average rural household. In urban areas, median income increased 2.4 percent to $36,079 from 1994 to 1995. The faster income growth in rural areas closed the rural-urban income gap slightly, but rural median household income remains about 23 percent below that of urban areas.

Incomes of Rural Minorities and Rural Women Are Far Below the Rural Average

The median income of rural Black households was $16,530, just 56.2 percent of the median for rural non-Hispanic White households (table 1). The Black-White gap in rural incomes has closed slowly since 1989, when Black median household income was only 50.6 percent that of non-Hispanic Whites. Rural Hispanic households also have incomes below the rural average, although not as markedly as do Black households. In 1995, median household income of rural Hispanics was $21,322, which was 72.5 percent of that for non-Hispanic Whites. The rural-urban difference for Hispanic households was much less than that for other race-ethnic groups—only 7.7 percent.

Women living alone or heading families face economic challenges in rural as well as in urban areas. In rural America, median household income for female-headed families was less than half that for two-parent families (46.3 percent). Median income for rural women living alone was $12,220, about 60 percent that of rural men living alone.

Rural Income Highest in the Northeast, Lowest in the South

Rural households in the Northeast have the highest incomes, followed by the Midwest, the West, and the South (table 1). The South also has the greatest rural-urban difference, with the rural median about 24 percent below the urban median. The regional differences in rural income are substantial even though they have declined in recent years. In 1989, median household income in the rural Northeast was 30.8 percent higher than that in the rural South. This gap declined to 23.1 percent by 1995 as rural income grew more rapidly in the South and less rapidly in the Northeast than it did in the other two regions. *[Mark Nord, 202-219-0554 (after October 24, 202-694-5433), marknord@econ.ag.gov]*

Changes in Metropolitan Classification Affect Income Trends

Trends in nonmetropolitan income statistics can be biased by periodic changes in the metropolitan classification of counties. Changes in metropolitan classification based on the 1990 census were first reflected in the Current Population Survey income statistics in 1994 (see appendix for a description of the Current Population Survey). The Census Bureau published median household income estimates based on both the old and new classifications in 1994 to provide continuity in the data series. As reflected in figure 1, the discontinuities introduced by the reclassification this decade were negligible.

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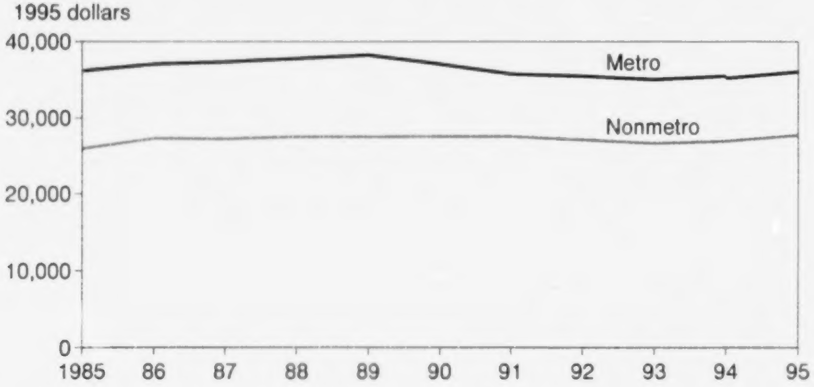
Figure 1

Median household income 1985-95

Income of the average nonmetro household increased nearly 3 percent in 1995, but continued to fall 23 percent below that of the average metro household



Note: Change of metro status of some counties caused a discontinuity in the data in 1994.

Source: Prepared by ERS using data from the Bureau of the Census' Consumer Income P-60 series (1985-95).

Table 1

Median household income in 1995 by residence, region, and selected characteristics

Incomes of rural minorities and rural women are much lower than the rural median

Category	Nonmetro	Metro	Nonmetro-metro gap[1]
	Dollars		Percent
Total	27,776	36,079	23.0
Race/ethnicity:			
White non-Hispanic	29,392	40,342	27.1
Black	16,530	23,348	29.2
Hispanic	21,322	23,090	7.7
Household composition:			
Two-parent family	37,075	51,023	27.3
Female-headed family	17,182	22,478	23.6
Female living alone	12,220	16,974	28.0
Male living alone	20,188	27,433	26.4
Region:[2]			
Northeast	30,949	36,919	16.2
Midwest	30,428	38,392	20.7
South	25,125	33,120	24.1
West	28,805	37,359	22.9

[1] Percent by which nonmetro income is lower than metro.

[2] See appendix for description of regions.

Source: Prepared by ERS using data from the March 1996 Current Population Survey.

Nonmetro Personal Income Increases in the 1990's

Nonmetro median personal income has increased in real terms in the 1990's and is closing the gap between metro and nonmetro medians.

Median personal income, adjusted for inflation, of people age 25 to 65 with positive personal income, has increased since 1993 (table 1) according to the March Current Population Survey. Both metro and nonmetro real personal income lost ground during the 1990-91 recession, and during 1992 and 1993 as well. But by 1995, real median personal income in nonmetro areas surpassed the level attained in 1990, whereas metro real median personal income has yet to attain its pre-recessionary level. In 1993, the median personal income of people living in nonmetro areas was $16,786 (1995 dollars). By 1995 it had grown to $17,933, above the $17,200 of 1990. The metro median was $22,034 in 1993 and $22,915 in 1995, but still below 1990's $23,165.

Median personal income in nonmetro areas still is well below the metro median. Looking back to 1963, nonmetro median personal income was only 66 percent of metro personal income (fig. 1). Over the 1970's, nonmetro personal income gained ground on the metro median so that by 1979, it was up to 83 percent of the metro median. But that success did not last. The recessions of 1980-82 and the several years following were harder on nonmetro areas than metro areas, which is shown in a number of economic indicators, including personal income. The nonmetro personal income median slipped to only 72 percent of the metro median in 1986, recovering to 78 percent by 1995. In the 1980's, there were many changes in the labor market that affected personal income, and they may have affected nonmetro personal incomes differently. Nonmetro areas have had disproportionately more workers who were part-time for economic reasons—part-time workers who work desired full-time jobs but none were available. The 1980's saw a favorable change in the earnings of white-collar workers by comparison to those of blue-collar workers. White-collar work is concentrated in metro areas. See table 2 for the upward trend in the nonmetro/metro medians ratio in the 1990's.

Among longer term influences fostering convergence between the nonmetro and metro medians is the rapid rise of educational attainment among Americans living in both metro and nonmetro areas. The proportion of people age 25 to 65 with some income who are not high school graduates has decreased steadily in the last third of the century in nonmetro areas as well as metro, while the proportion with at least some college education has increased steadily in both areas (fig. 2).

Table 1
Median personal income
Median nonmetro personal income up since 1990

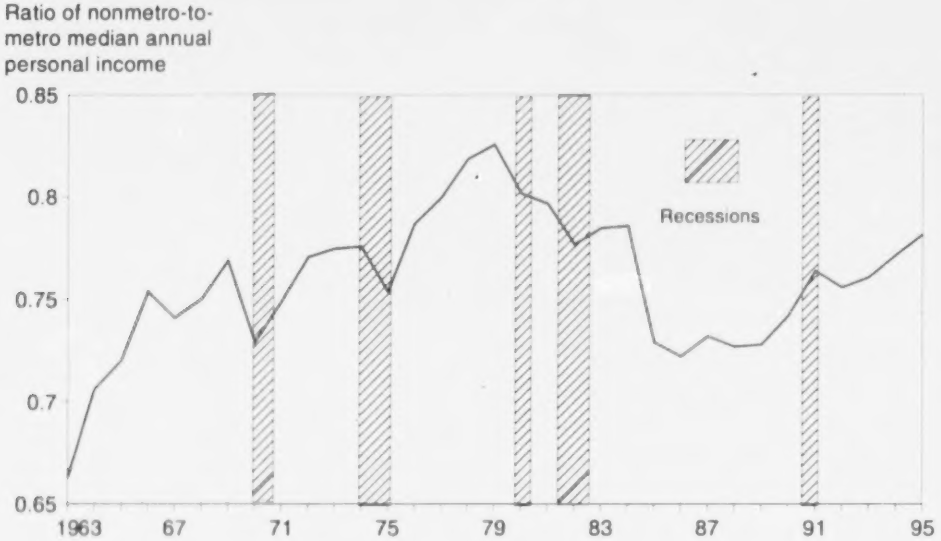
Year	Nonmetro	Metro	Nonmetro	Metro
	Current dollars		1995 dollars	
1990	14,850	20,000	17,200	23,165
1991	15,330	20,060	17,040	22,298
1992	15,740	20,801	16,936	22,382
1993	16,006	21,010	16,786	22,034
1994	17,000	22,000	17,404	22,523
1995	17,933	22,915	17,933	22,915

Note: Includes only people age 25 to 65 with positive personal income. The CPS was redesigned in 1994 so 1995 data are not directly comparable (see appendix on CPS redesign). Real median income uses the Personal Consumption Expenditure price index from Bureau of Labor Statistics.
Source: Current Population Survey, March Supplements.

Figure 1

Ratio of nonmetro-to-metro median personal annual income

Nonmetro median income decreased more than metro median in recessions prior to 1990-91, but is again headed toward parity



Note: In 1973, 1985, and 1995, the metro/nonmetro classification based on the previous census was incorporated in the data.

Source: Current Population Survey, March Supplements.

Table 2

Ratio of nonmetro median personal income to metro median

The nonmetro median is up relative to the metro median since 1990

Year income received	Ratio of nonmetro-to-metro median
	Percent
1990	74.3
1991	76.4
1992	75.7
1993	76.2
1994	77.3
1995	78.3

Note: Includes only people age 25 to 65 with positive personal income.
Source: Current Population Survey, March Supplements.

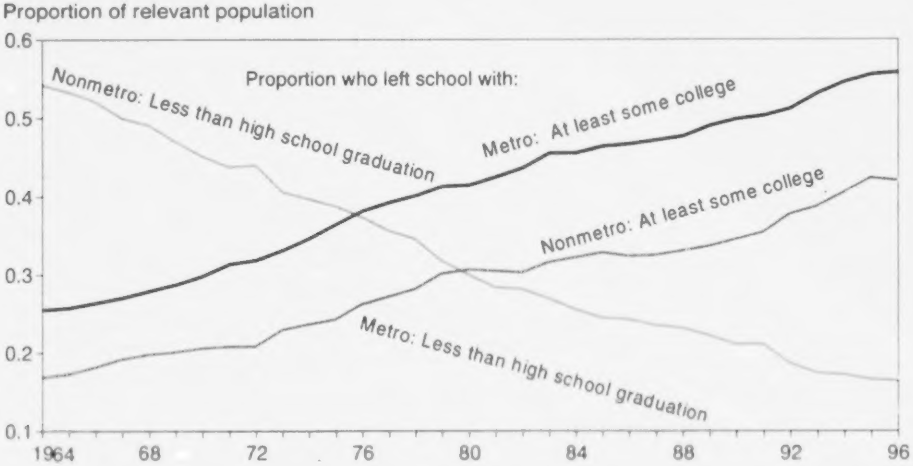
Median incomes at given levels of education have yet to exceed the levels they had attained before the 1990-91 recession (table 3). This means that education attainment levels among nonmetro individuals made an important contribution to the rise of nonmetro median personal income above its pre-recessionary level.

The nonmetro-to-metro median ratio varies by education level (table 3). People without a high school diploma have median incomes that are low and of about the same size regardless of whether their residence is nonmetro or metro. In the case of people with a high school diploma and those with at least some college, nonmetro median incomes are lower than metro median incomes. *[Jack Angle, 202-501-7866 (after October 24, 202-694-5415), jangle@econ.ag.gov]*

Figure 2

Nonmetro and metro education attainment, 1964-96

Metro education levels are higher than nonmetro, but they move closely together over time



Note: In 1973, 1985, and 1995, the metro/nonmetro classification based on the previous census was incorporated in the data.

Source: Current Population Survey, March Supplements.

Table 3

Median personal income by level of education

Nonmetro median personal income was much lower than metro except for those without a high school diploma, whose incomes are roughly comparable

Year	Less than high school graduation		High school diploma or GED		At least some college	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
	1995 dollars					
1990	10,424	11,785	16,389	19,458	23,746	30,348
1991	10,113	11,116	16,007	19,036	23,813	30,046
1992	9,899	10,760	16,140	18,744	22,811	30,034
1993	9,644	10,487	15,994	18,353	23,072	29,365
1994	10,234	10,647	15,971	18,633	23,424	29,280
1995	10,361	10,959	16,323	18,933	23,400	29,889

Note: While at a given level of education, none of the 1995 medians are higher than the corresponding 1990 medians, education levels among nonmetro people increased enough to allow the overall nonmetro 1995 median of personal income to be higher than the 1990 median.
Source: Current Population Survey, March Supplements.

Rural Poverty Rate Edges Downward

The rural poverty rate declined slightly during 1993-95 after increasing during the early 1990's. The poverty rate remains highest in the rural South, and rural minorities, women, and children are especially disadvantaged economically.

The poverty rate in rural America stood at 15.6 percent in 1995. It declined slightly in each of the previous 2 years, and although the declines were slight, they suggest that the upward trend of rural poverty since 1989 has stopped or reversed (fig. 1). The urban poverty rate also declined slightly to 13.4 percent. The poverty gap of 2.2 percentage points between rural and urban areas has remained almost constant since 1991.

A Disproportionate Share of Rural Residents Have Incomes Just Above the Poverty Line

In rural areas, 26.3 percent of residents live in households with income between one and two times the poverty line, compared with 18.2 percent in urban areas (fig. 2). Continued favorable economic trends are especially important to these households because they are vulnerable to downturns in the national or regional economies. They are also vulnerable to personal or family economic setbacks. The large proportion of families with incomes just above the poverty line makes the rural poverty rate quite sensitive to national and regional economic changes.

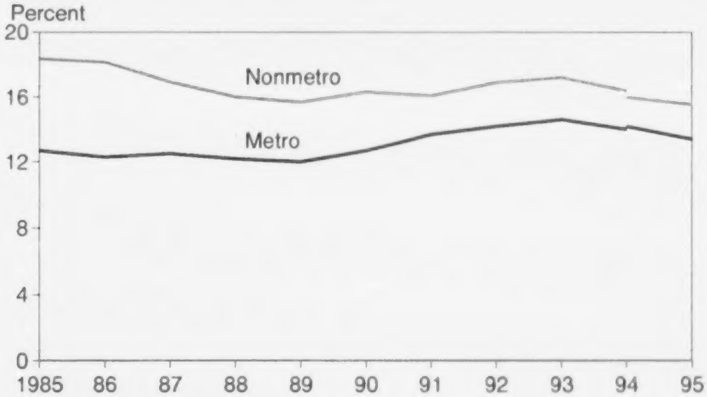
Rural Minorities Are Especially Disadvantaged Economically

The poverty rates among rural Blacks (34.8 percent) and rural Native Americans (35.6 percent) were almost three times that of rural non-Hispanic Whites (12.2 percent; fig. 3). The economic disadvantage of rural Hispanics was also substantial, evidenced by a poverty rate of 30.6 percent. Rural poverty rates were substantially higher than urban poverty rates for all racial-ethnic groups except Hispanics. Despite the higher incidence of poverty among minorities, almost two-thirds of the rural poor were non-Hispanic Whites because of the large White majority in the rural population (appendix table 6). Differences in education levels account for only about one-third of the Black-White and Hispanic-White poverty differentials, and about one-fifth of the Native American-White poverty difference.

Figure 1

Poverty rate by residence, 1985-95

The poverty rate in nonmetro counties declined in 1994 and 1995 after a generally increasing trend during the early 1990's



Note: Change of metro status of some counties caused a discontinuity in the data in 1994.

Source: Prepared by ERS using data from the Bureau of the Census' Consumer Income P-60 series (1985-95).

Almost One-Quarter of the Children in Rural America Live in Poverty

In 1995, 3.2 million rural children under the age of 18 lived in families with incomes below the poverty level. The poverty rate for rural children was 22.4 percent. The majority of rural poor children (59.9 percent) lived in single-parent families, most (55.4 percent) in female-headed families. For rural Black children, who face the combined economic disadvantages of rurality, race, and childhood, the poverty rate was 47.6 percent.

The poverty rate among the rural elderly (age 65 and above) was 13.1 percent. This was substantially higher than the poverty rate of the urban elderly (9.7 percent), and essentially the same as that of rural working-age persons. Well over half of the elderly rural poor (57.3 percent) were women living alone.

Poverty Higher in Female-Headed Families

Rural women heading families or living alone experience particularly serious economic disadvantages. Although a large majority of the total rural population (69.2 percent) lived in two-parent families, over half of the rural poor lived in families headed by women with no husband present or were women living alone. In 1995, the poverty rate for people living in rural female-headed families was 39.9 percent, and that for rural women living alone was 31.3 percent. By comparison, the poverty rate in rural two-parent families was only 8.3 percent while that for rural men living alone was 22.4 percent.

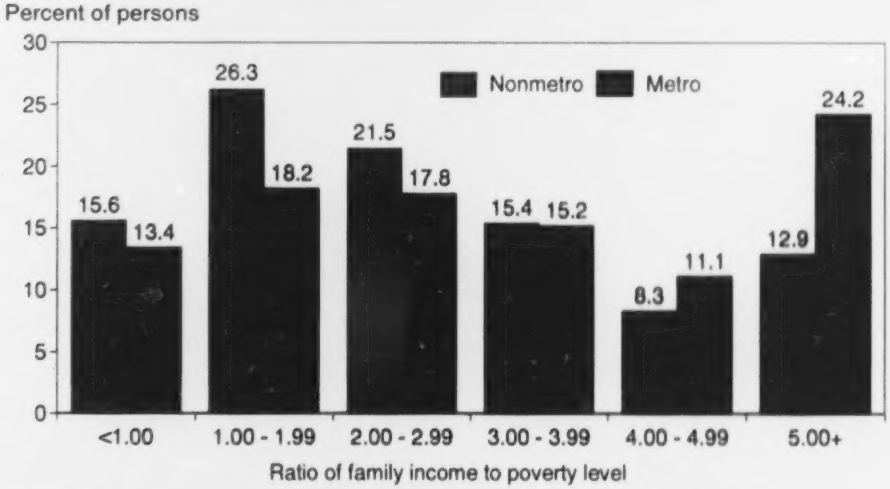
Employment Status of the Rural Poor

More than 60 percent of the rural poor were in families with at least one working member or, if living alone, were themselves employed at least part of the year. That proportion increased to nearly 70 percent when families with no working-age adults were excluded. Moreover, 23 percent of the rural poor were either in families with one or more full-time workers or were full-time workers living alone. Working poverty is somewhat more prevalent in rural than in urban areas, reflecting the higher proportion of low-wage jobs in rural areas. Among families with full-time workers and full-time workers living alone, the poverty rate was 5.6 percent in rural areas compared with 4.2 percent in urban areas (see appendix table 6).

Figure 2

Distribution of persons by ratio of family income to poverty level, 1995

Compared with urban areas, a disproportionate share of the rural population live in families with incomes just above the poverty line

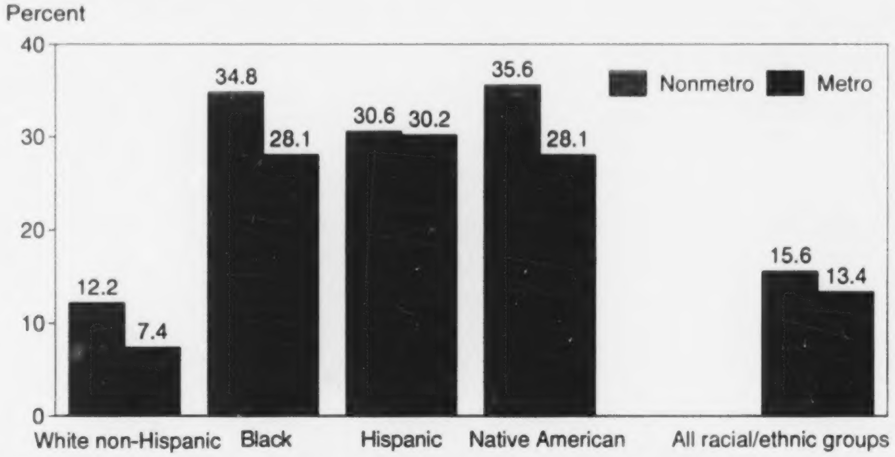


Source: Prepared by ERS based on data from the March 1996 Current Population Survey.

Figure 3

Poverty rates by race/ethnicity and residence, 1995

Rural minorities experience the highest poverty rates--about three times those of non-Hispanic Whites



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

Changes in Metropolitan Classification Affect Poverty Trends

Trends over time in nonmetropolitan poverty statistics are complicated by periodic changes in the metropolitan classification of counties. The largest reclassification occurs once each decade based on population information from the decennial census. Changes based on the 1990 census were first reflected in the poverty statistics for 1994 (see appendix for description of the Current Population Survey data on which these statistics are based). For 1994, the Census Bureau published poverty rates based on both the old and new classifications in order to provide continuity in the data series, and this is reflected in figure 1. The poverty statistics in last year's *Rural Conditions and Trends* were based on the 1980's classification, so they cannot be compared directly with the 1995 statistics reported here.

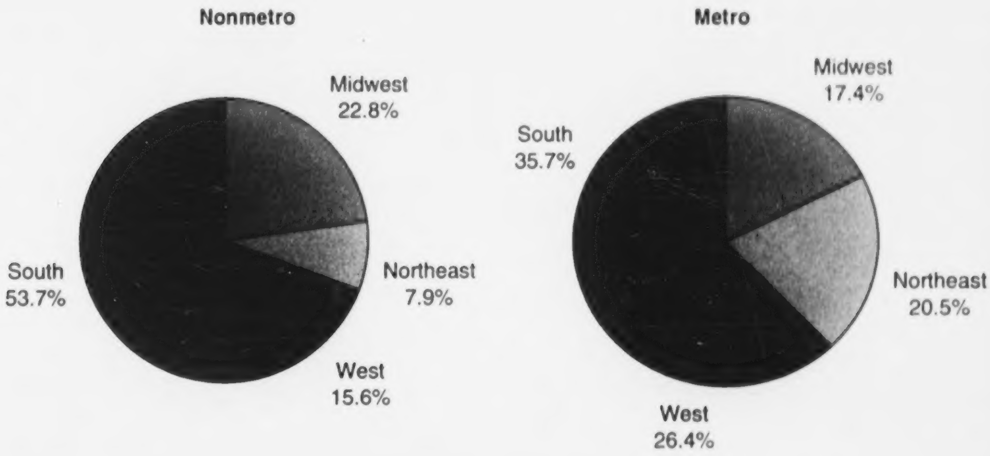
Most Rural Poor Live in the South

Over half of the rural poor (53.6 percent) live in the South (fig. 4; see appendix for definition of regions). The poverty rate in the rural South, at 19.2 percent (fig. 5), was substantially higher than that in the rest of rural America, and only in the South was the rural poverty rate dramatically higher than the corresponding urban poverty rate. Rural poverty rates were 16.5 percent in the West, 11.6 percent in the Midwest, and 11.3 percent in the Northeast. *[Mark Nord, 202-219-0554 (after October 24, 202-694-5433), marknord@econ.ag.gov]*

Figure 4

Regional shares of nonmetro and metro poor, 1995

More than half of the nonmetro poor live in the South Census Region

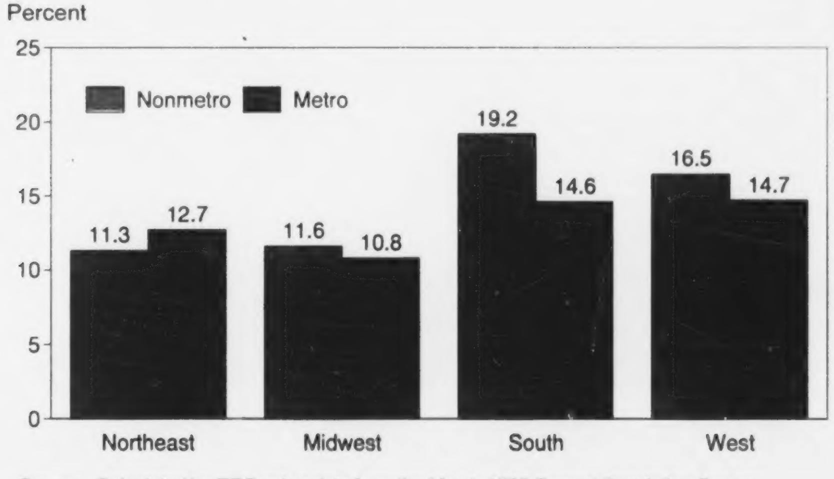


Source: Prepared by ERS based on data from the March 1996 Current Population Survey.

Figure 5

Poverty rates by region and residence, 1995

The South has the highest rate of rural poverty and the largest nonmetro-metro poverty gap



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

Family Structure and Employment Characteristics Differentiate Poor from Near-Poor Workers

Many rural workers are poor or have incomes just above the poverty line. Rural poor workers are more likely than near-poor or other workers to live in a one-earner family, and to work less than full-time. Rising above the poverty level may be difficult for many poor workers because they have multiple barriers to livable-wage employment.

The modest increase in weekly wages from 1990 to 1996 (see "Rural Earnings Edge Up in the 1990's" in this issue) has done little to alleviate the working poverty that persists in both rural and urban areas. Work does not always lift and keep a family out of poverty. Identifying those family and employment characteristics that distinguish poor workers from near-poor workers sheds some light on what is required for a worker to rise above the poverty level. Welfare reform efforts to move recipients from welfare to work will face some of the same problems that result in working poverty in rural areas.

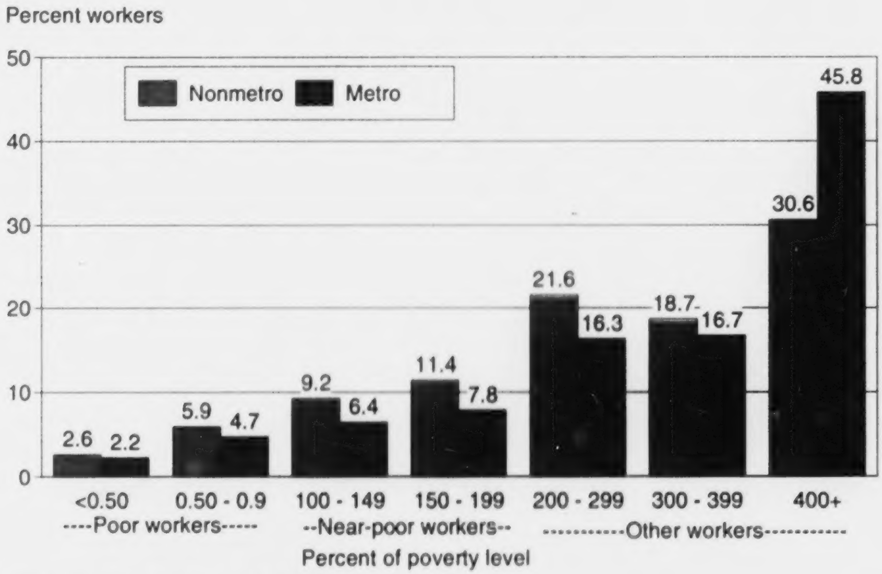
Rural Workers More Likely Than Urban Workers To Be at the Lower End of the Income Distribution

In 1995, 123,750,000 persons in the United States worked at least part of the year. Of those workers, 8,954,000, or 7 percent, had family incomes below the poverty level (fig.1). Another 19,036,000 (15 percent) had family incomes between 1 and 2 times the poverty level (near-poor workers). Rural workers were somewhat more likely than urban to be poor—about 8.5 percent of rural workers had family income below the poverty level, compared with about 7 percent of urban workers. Rural workers were much more likely than urban to be near-poor—20 percent of rural workers were near-poor, 14 percent of urban workers. The share of rural workers with family income over twice the poverty level was 71 percent, versus 79 percent of urban workers. The 31-percent share of rural workers in the highest income category (those with family incomes at least four times the poverty level) was considerably smaller than the urban share (46 percent) and reflects in

Figure 1

Distribution of workers by ratio of family income to poverty level, 1995

Rural workers are more likely than urban workers to be poor or near-poor



Note: See appendix for definition of workers.
Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

part the location of the highest paying jobs in urban areas. Average 1995 earnings for rural poor workers, at $5,221, were similar to the average earnings for urban poor workers ($5,244). Average 1995 earnings for rural near-poor workers, at $11,825, were slightly lower than for urban near-poor workers ($12,303). For all other workers, 1995 earnings averaged $26,327 for rural workers and $33,465 for urban workers. Workers are defined here as persons between 18 and 64 years old, not self-employed, and who worked and had positive earnings during 1995.

Poor Workers and Near-Poor Workers More Likely Than Other Workers To Be Southern, Young, and in a Minority Group

The Southern region, which contains the largest share of the rural population (44 percent) and the largest share of rural workers (35 percent), also contains the largest share of poor and near-poor workers. Forty-eight percent of rural poor and about the same share of near-poor workers lived in the South, compared with 39 percent of other workers.

About 31 percent of rural poor workers were young (less than 25 years old), a much larger share than for either near-poor (22 percent) or other workers (13 percent). This is not surprising given that almost none of the young workers would be likely to earn the higher wages that accompany job seniority, and many were in school. In fact, if rural workers who claimed to work less than 52 weeks in 1995 because they were in school are excluded from the analysis, only 26 percent of poor workers, 19 percent of near-poor workers, and 9.5 percent of other workers were under the age of 25. Predictably, older workers experience less poverty than younger workers. Only 17 percent of rural poor workers and 20 percent of near-poor workers were age 45 and older, while 37 percent of other rural workers fell into this age category.

Although the share of minorities differs between each of the income groups, both rural poor and near-poor workers were much more likely than other workers to be a minority. Thirty-one percent and 25 percent of rural poor and near-poor workers were minorities, compared with only 10 percent of other workers.

Living in Multiple-Earner Families and Labor Force Participation Separate Poor From Near-Poor and Other Workers

Living in a family with more than one worker reduces the likelihood of poverty for rural workers (table 1). Workers in families with more than one adult but with only one adult

Table 1

Worker poverty status by potential number of earners per family, 1995

Rural poor workers were much less likely than near-poor or other workers to live in families with two or more earners

Item	Nonmetro			Metro		
	Poor	Near-poor	Other	Poor	Near-poor	Other
	Percent					
One adult earner in multiple-adult family	14.5	31.2	54.3	12.0	22.8	65.2
Two or more earners in multiple-adult family	3.0	16.3	80.7	2.4	9.8	87.8
Single parent earner	38.3	35.0	26.7	30.3	31.0	38.7
Sole male earner	13.8	25.0	61.2	10.0	18.9	71.1
Sole female earner	19.6	30.7	49.7	11.3	21.8	66.8

Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

working were much more likely to be poor or near-poor (46 percent) than workers in families with two or more earners (19 percent). The workers most vulnerable to poverty or near-poverty were single parents. Almost 75 percent of workers in this group were poor or near-poor. Women living alone experienced higher rates of poverty and near-poverty than men living alone. Half of the women living alone fell into the poor and near-poor categories, compared with 39 percent of men living alone.

The extent of employment distinguished rural poor workers from near-poor and other workers. Poor workers were much more likely than workers in the other two groups to be employed less than full-time, full-year (fig. 2). About 70 percent of rural poor workers worked part-time, part-year, compared with 37 percent of near-poor workers and 23 percent of other workers. Nevertheless, even full-time, full-year work does not guarantee adequate income. About 30 percent of poor workers worked full-time, full-year.

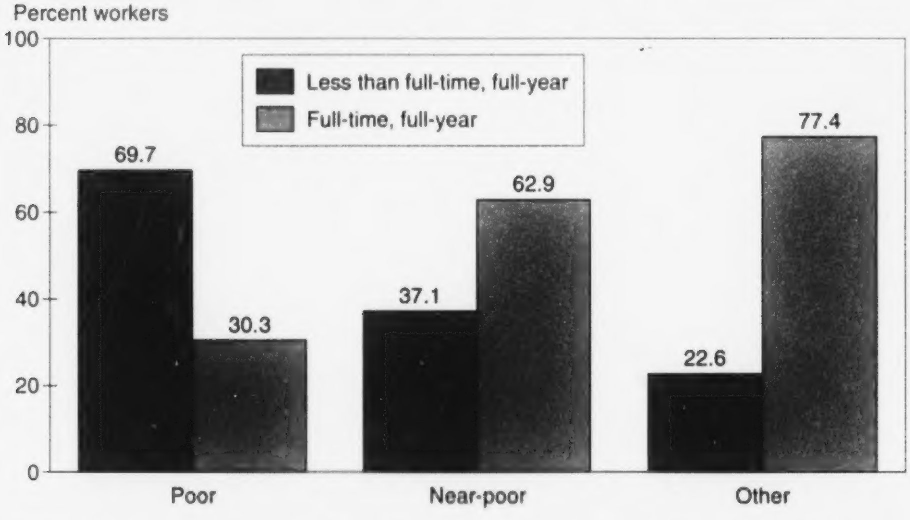
Poor Workers Experience More Barriers to Livable-Wage Employment Than Near-Poor Workers

Certain educational and family characteristics can make it difficult to acquire and sustain livable-wage employment, and these characteristics distinguish rural poor and near-poor workers from other workers (fig. 3). Workers with low levels of education often find they do not qualify for better paying jobs. Thirty-two percent of rural poor workers and 23 percent of near-poor workers over age 25 lacked a high-school diploma, compared with 10 percent of other rural workers. Female heads of family also are at a disadvantage in the labor market, partly because caring for young children contributes to the parent's relative unavailability for work, and to the limited ability of other family members to contribute additional income. A much higher proportion of poor workers (48 percent) than near-poor

Figure 2

Work time of rural workers by poverty status, 1995

Less than full-time, full-year work sets poor workers apart



Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

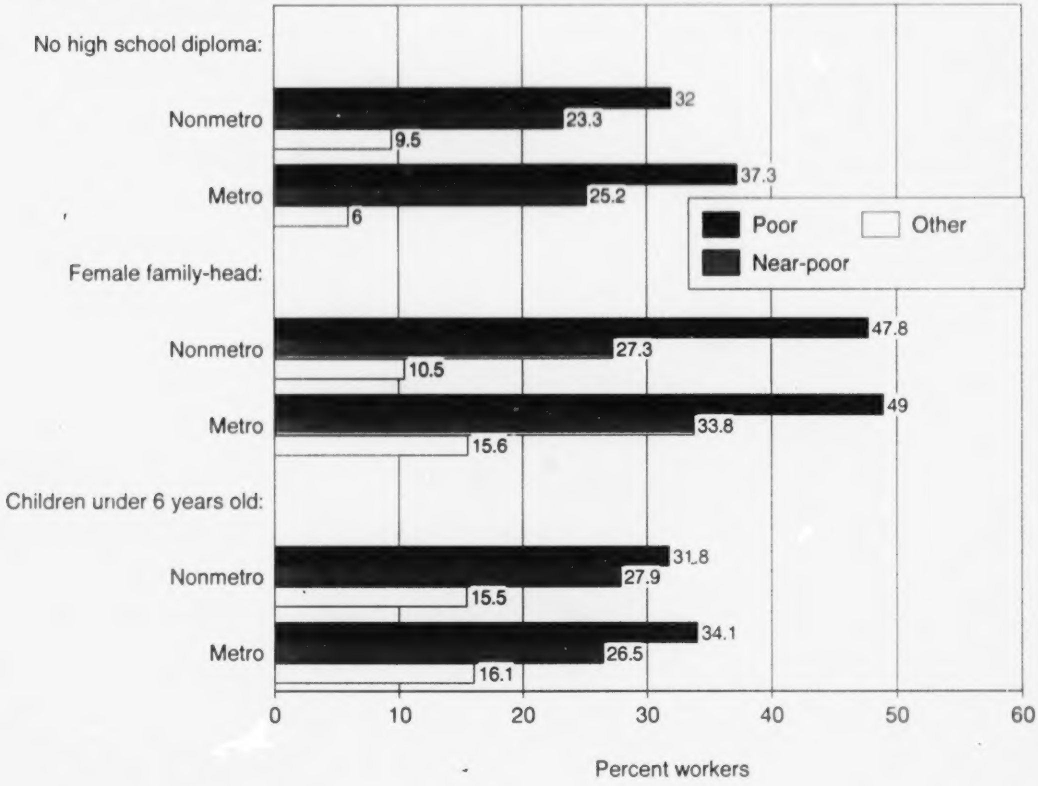
workers (27 percent) were female family heads. Of other workers, female family heads comprised less than 11 percent.

Additionally, poor workers and near-poor workers were more likely to have children under the age of 6 than other workers. While 32 percent and 28 percent of rural poor and near-poor workers had children under 6 years, less than 16 percent of other workers had children in this age category. Low-wage workers with young children may gain some relief from the Earned Income Credit, a refundable Federal tax credit targeted to low-income workers with at least one dependent child. As disadvantageous as these educational and family characteristics are singly, they are even more disadvantageous in combination. Twenty-two percent of rural poor workers had two of these barriers to livable-wage employment, while only 10 and 1.5 percent of rural near-poor and other workers were similarly disadvantaged (fig. 4). About 3.5 percent of poor workers in rural areas possessed all three barriers to earning a livable wage—low educational level, being a female family head, and having a young child at home—compared with less than 0.5 percent of near-poor workers and less than 0.01 percent of other workers. *[Elizabeth M. Dagata, 202-219-0536 (after October 24, 202-694-5422), edagata@econ.ag.gov]*

Figure 3

Barriers to livable-wage employment by poverty status and residence, 1995

Poor and near-poor workers have more barriers to livable-wage employment than other workers

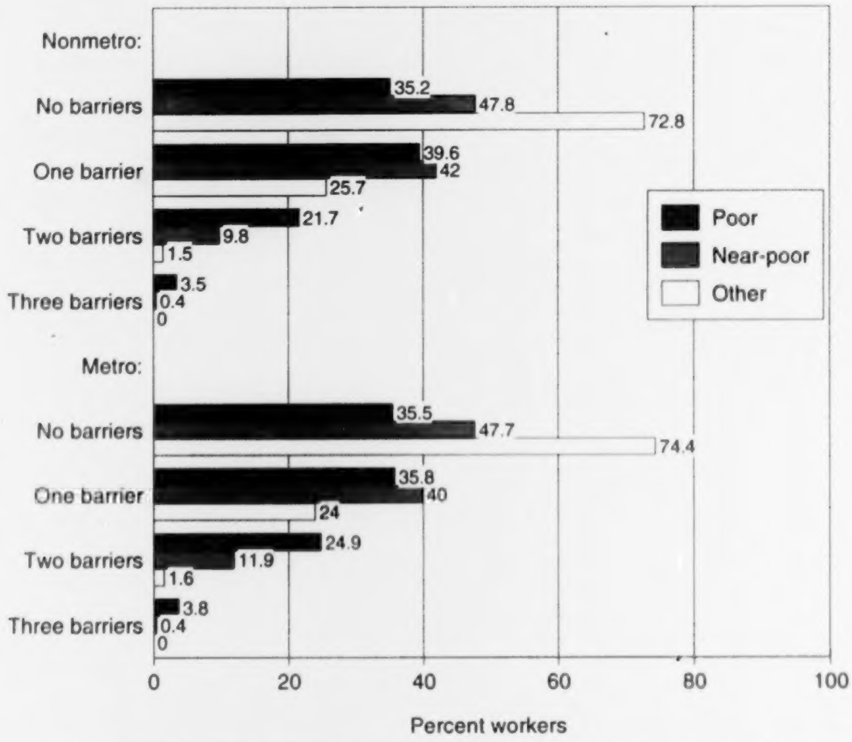


Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

Figure 4

Multiple barriers to livable-wage employment by poverty status and residence, 1995

Poor and near-poor workers are also more likely than other workers to have multiple barriers to livable-wage employment



Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

Who Is Considered Poor ?

A person is considered poor if his or her family's money income is below the official poverty threshold appropriate for that size and type of family. Different thresholds exist for elderly and nonelderly unrelated individuals, for two-person families with and without elderly heads, and for different family sizes by number of children. For example, the poverty threshold for a family of four with two children was $15,455 in 1995. Thresholds are adjusted for inflation annually using the Consumer Price Index. *Poor workers* are workers whose family income falls below the poverty level, *near-poor* workers are workers whose family income is between 1 to 2 times the poverty level, and *other workers* are workers with family income above 2 times the poverty level.

Migration Contributes to Nonmetro Per Capita Income Growth

Recent migration into and out of nonmetro counties increased nonmetro per capita income, especially in rapidly growing, high-amenity settings. Incomes of nonmetro inmigrants exceeded incomes of outmigrants in all types of nonmetro counties except those dependent on mining.

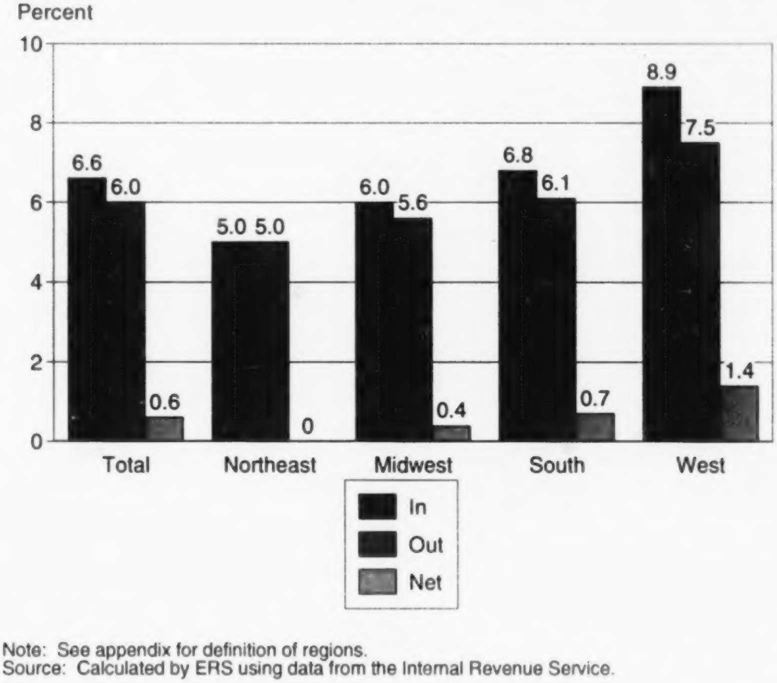
During the post-1990 nonmetro population growth spurt, the higher income of inmigrants compared with outmigrants increased overall nonmetro per capita income by an estimated $30 a year. Between April 1992 and April 1995, the average per capita income was $11,176 for inmigrants and $10,579 for outmigrants. Mirroring these patterns, metro outmigrants were slightly wealthier than inmigrants, creating a $4 annual drop in metro incomes. Migration increased per capita income in roughly half of all nonmetro counties. The effect varied from -$763 to $1,666. However, 81 percent of nonmetro counties fell in the range of -$100 to $100.

Recent income growth due to migration coincides with a nonmetro population revival. Nonmetro areas currently have higher levels of inmigration from metro areas and lower outmigration to metro areas than in the previous decade. Movement to and from metro areas—along with county-to-county migration within nonmetro territory—sustains an ongoing redistribution of population, causing some areas to grow rapidly while others decline. During 1992-95, the average nonmetro county grew 6.6 percent per year from inmigration but lost 6.0 percent to outmigration. The net effect was a 0.6-percent increase in population per year. These gains stand in contrast to several years of population loss from net migration during the mid-1980's. In addition, migration patterns varied across regions, consistently favoring the West and South (fig. 1). During 1992-95, the nonmetro Northeast did not grow at all from net migration because inmigration equaled outmigration. At the same time, inmigration to the nonmetro West was substantially higher than outmigration, leading to annual gains of 1.4 percent from net migration.

Figure 1

Nonmetro annual population change from migration, by region, 1992-95

The West experienced highest rates of in- and outmigration



Note: See appendix for definition of regions.
Source: Calculated by ERS using data from the Internal Revenue Service.

High-Amenity Counties Lead in Migration-Induced Income Growth

The effect of migration on local communities and economies depends not only on migration rates, but also on the characteristics of the in- and outmigrants and how they compare with characteristics of residents who do not move (nonmigrants). Attributes such as age, education, job skills, health status, and income influence job growth and alter the demand for public services such as education, income maintenance, and health care. In recent years, low-income families have been migrating as readily as those better off, but have been following somewhat different migration paths. An influx of low-income migrants poses a very different set of challenges to a community than an influx of high-income migrants.

Using county-level data provided by the Internal Revenue Service on the number and aggregate income of inmigrants, outmigrants, and nonmigrants, we calculated the effect of migration on county per capita income during 1992-95. (See box below for a description of the data.) Earnings and nonearnings are combined so we cannot separate the effect of nonearnings income that migrants bring with them (or take away) from the effect of the higher or lower earnings income migrants receive once they move. The effect of migration on income had a fairly strong geographic pattern. Nonmetro counties that experienced rising income as a result of migration were concentrated at the suburban fringe of expanding metro areas and in areas of high natural amenities, especially in the

About the Estimates and the Calculation of Migration's Effect on Income

The Internal Revenue Service (IRS) compiles annual county-level domestic migration data by matching current-year tax returns with those from the previous year and comparing addresses. If a county of residence is different in the previous year, members of that family are considered migrants. If the county is the same, they are considered nonmigrants. The number of exemptions claimed on the return serves as a proxy for the number of migrants in that family. Most people file their returns during early to mid-April, so the data here refer to flows from April of one year to April the next.

Beginning in 1993, county-level data on aggregate income of inmigrants, outmigrants, and nonmigrants were added to this file. To summarize the effect of migration on per capita income, we calculated the change in county per capita income that resulted from the recorded migration, computed as the combined per capita income of the county's inmigrants and nonmovers less the combined per capita income of outmigrants and nonmovers. An average of three sets of flows, 1992-93, 1993-94, and 1994-95, was used to reduce random measurement errors and the disturbances caused by uncharacteristic single-year events. Eleven nonmetro counties lacked valid migration or income data for one or more years and were excluded from the analysis.

For most persons, income during the year of a move is lower than their multi-year average income. Often some work is missed during a move, and moves are sometimes precipitated by loss of employment and preceded by a period of unemployment or underemployment. Nevertheless, the "income effect of migration" should serve reasonably well as a relative indicator, since the downward bias should affect inmigrants and outmigrants similarly. When interpreting the absolute value of the difference between income of movers and nonmovers, however, this bias should be kept in mind.

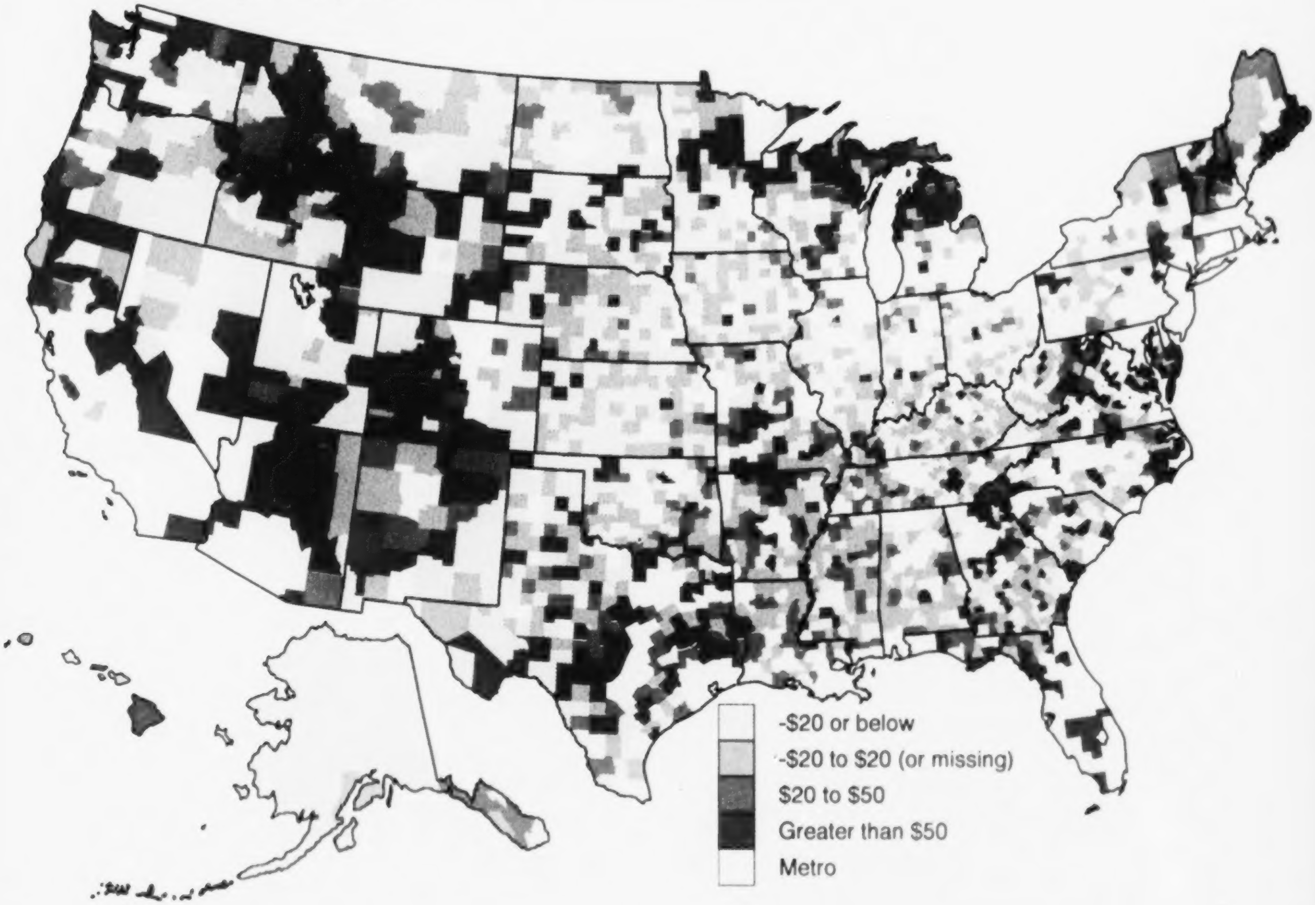
IRS migration data cover roughly 80 percent of the migrating population, offering a window into detailed, annual population dynamics not available elsewhere. Coverage varies geographically and is demographically selective—those likely to be left out include college and military migrants, labor force entrants, and the long-term unemployed. Common data adjustments used at the State level to partially correct for geographic variation of missing individuals have not been applied here; adjustments at the county level may create more problems than they solve because the demographic groups left out most likely have very different geographic migration patterns than the population as a whole.

intermountain West and the Pacific coastal ranges, but also in the eastern Appalachians, the Ozark-Ouachita Plateau, the Upper Great Lakes, and parts of rural New England (fig. 2). Counties that experienced declining income as a result of migration (either due to low-income inmigration or high-income outmigration) are concentrated in the Great Plains, the Corn Belt, the western Appalachians, and to a lesser degree throughout the south-eastern Coastal Plain. Several such counties are also scattered in the interior West and Northwest.

Figure 2

Nonmetro annual per capita income change from migration, 1992-95

Migrants raise per capita income in the Rocky Mountains, Great Lakes, and other high-amenity areas



Notes: 1993 metro definitions. Statistics calculated separately for 1992-93, 1993-94, and 1994-95, then averaged. Values set to zero for 26 nonmetro counties with unreported income data.

Source: Calculated by ERS using data from the Internal Revenue Service.

During 1992-95, most nonmetro counties with high net inmigration attracted migrants with high incomes relative to those of outmigrants, while the reverse held for counties with net outmigration. However, a substantial minority of high-inmigration counties did attract inmigrants with incomes well below those of outmigrants. These low-income destination counties are scattered throughout the Midwest and in historically high-poverty areas of the East and Southeast. Interestingly, there are also a number interspersed with the high-income destination counties in the intermountain West. This juxtaposition may in part reflect a commonly expressed concern, that low- and middle-income persons are attracted to the service jobs opening up in the intermountain West but are unable to live in the high-amenity counties where the jobs are concentrated because of the rapidly rising cost of land and housing in those counties.

Income Benefits Accrue to Highly Rural Settings and Retirement Destinations

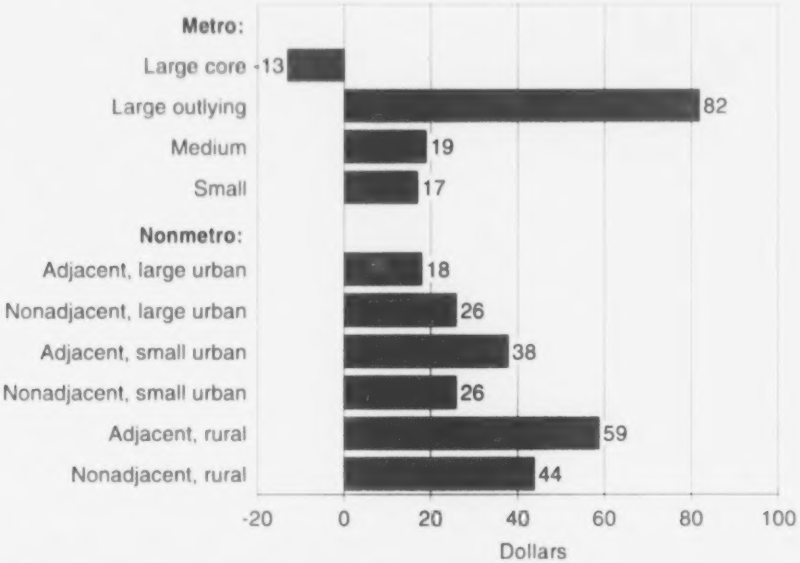
During the early 1990's, the attractiveness of sparsely settled, isolated locations increased dramatically for rural migrants. At the same time, the pull of natural amenities remained high and that of economic opportunities associated with amenity-based economies increased. The increasing importance of residential and recreational desirability creates new opportunities for remote rural areas, but raises the question of whether the benefits of migration to local economies also extend across the rural-urban spectrum.

The effect of migration on income varied across the rural-urban continuum as measured by the 1993 ERS rural-urban categories (see appendix for a description), and sparsely settled areas appear to have fared rather well. The most notable effects were in large metro areas, lowering income in the core counties and raising income in fringe counties surrounding them. But there were also substantial positive effects on income in most of the nonmetro categories, and especially in the most rural categories. Income effects were generally higher in counties adjacent to metro areas than in nonadjacent counties with similar size urban populations. Within nonmetro nonadjacent territory, per capita incomes grew by $44 per year from migration in rural counties compared with $26 in urban counties (fig. 3).

Figure 3

Annual per capita income change from migration, by rural-urban categories, 1992-95

Income declined in core counties of largest metro areas; highest nonmetro gains were found in completely rural counties



Note: See appendix for definition of rural-urban categories.
Source: Calculated by ERS using data from the Internal Revenue Service.

Migration's effect on income varied substantially among counties with differing economic activities. Counties dependent on farming and mining experienced negative or very slow income growth from migration, while per capita income in counties dependent on the rapidly expanding rural service sector grew by $91 per year (fig. 4). Manufacturing counties gained population through net migration at the overall nonmetro rate (0.6 percent), but gained per capita income at only a fraction of the overall rate ($2 as compared with $30).

Retirement-destination counties not only showed the highest per capita income gains from migration, $201, but were the only county type where the income of inmigrants was higher than the income of nonmigrants. This is not entirely unexpected since, by definition, retirement destinations attract large numbers of older migrants who as a group tend to have relatively high incomes. In addition to retirement destinations, counties with a large proportion of federally owned land are also rich in natural amenities. These two county types (which overlap somewhat) had the highest rates of net inmigration as well as the highest income growth from migration of all county types. Well-to-do migrants tend to spur the local economy. The additional $201 in per capita income in a retirement-destination county represents, on average, $4.7 million additional income in the county per year. A substantial amount of this additional income would be spent in the county on goods and services.

Income Migration Trends Over Time Hard To Predict

It is often assumed that any net inmigration is a boon to the local economy, but this depends on the economic characteristics of the inmigrants and outmigrants. In 1992-95, not all counties with high net inmigration attracted high-income migrants. In the rural-urban distribution of income migration, rural areas fared rather well on average, but geographically this outcome was distributed very unevenly, and the differences appear to have resulted more from the natural amenities of counties than from the job opportunities offered by their economies (fig. 5).

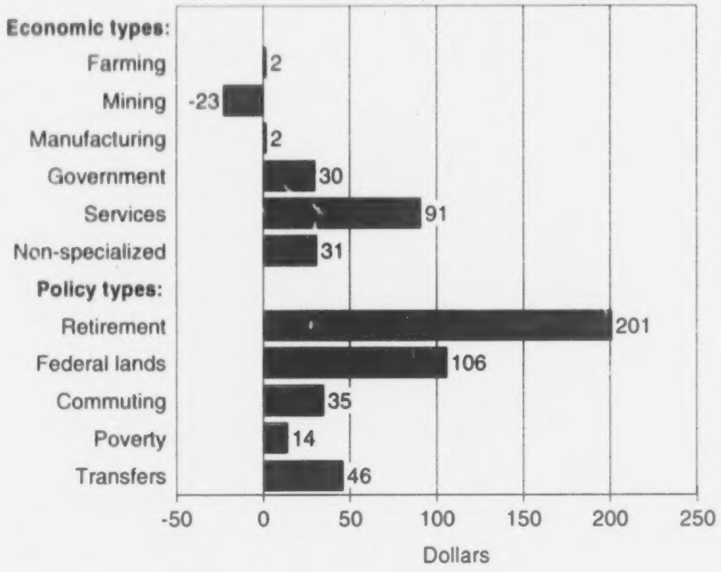
Although traditional economic strategies will continue to be important to the vitality of rural communities, strategies that build on their natural amenities and rural residential desirability will become increasingly important. Rural communities cannot change their climate or import mountains; however, they can protect and enhance (and, to some extent, market) the natural resources they do have. And they can complement their natural advantage of rurality itself with other factors such as health, education, and cultural services that make rural communities attractive places for people to live and recreate.

The pull of natural amenities is likely to strengthen in the coming years as the vanguard of the large baby boom cohort edges toward retirement and as high-technology businesses become less attached to major urban centers. However, because the source of data is so new, we do not yet know to what extent the patterns of income migration described here are associated with the growing amenity-based rural economy. Do these patterns differ from those of the past? Are they, in fact, changing the spatial distribution of income, or are they patterns that are longstanding and arise from life-cycle migration patterns? Monitoring income changes and migration over the next few years will help provide answers to these questions. *[John Cromartie, 202-219-0192 (after October 24, 202-694-5421), jbc@econ.ag.gov; and Mark Nord, 202-219-0554 (after October 24, 202-694-5433), marknord@econ.ag.gov]*

Figure 4

Annual per capita income change from migration, by county type, 1992-95

Retirement destinations attracted high-income migrants

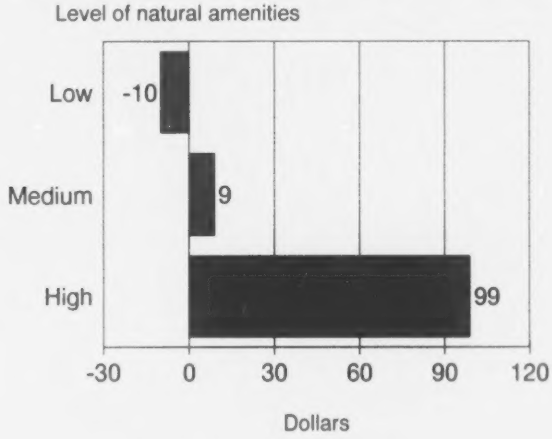


Note: See appendix for definition of county types.
Source: Calculated by ERS using data from the Internal Revenue Service.

Figure 5

Nonmetro annual per capita income change from migration, by level of natural amenities, 1992-95

Highest migration-induced income gains were found in high-amenity counties



Note: Natural amenities are measured using the ERS natural amenities index. See appendix for a definition. The high and low categories measure the income change for the 25 percent of nonmetro counties with the highest and lowest natural amenities, respectively.

Source: Calculated by ERS using data from the Internal Revenue Service.

Nonmetro Population Growth Rebound of the 1990's Continues, But at a Slower Recent Rate

Nonmetro population grew by about 6 percent from April 1990 to July 1996, with three-fifths of this increase derived from net inmovement of people from metro areas and from abroad. The pace of increase was somewhat lower than that in metro America (nearly 7 percent), but more than twice the increase that occurred during the entire 1980's. In the single year, 1995-96, nonmetro growth was below that of the previous several years.

The current trend of renewed growth in the nonmetro population has been rather well publicized by now, having been reported by major newspapers and magazines. This article updates the trend to mid-year 1996. The basic event we are following is one in which three-fourths of the country's 2,300 nonmetro counties have increased in population since 1990, after fewer than half had done so during the extended farm crisis and general rural economic recession of the 1980's.

From 1990 to 1996, nonmetro counties had an overall population increase of 5.9 percent, modestly below that of 6.9 percent in metro areas (table 1). In contrast, in the 1980's, metro areas grew at a rate four and a half times that of nonmetro communities.

Migration From Metro Areas Provided Half of All Nonmetro Population Increase

The most significant feature of this turnabout is that half of the nonmetro growth since 1990 has stemmed directly from a net inflow of 1.5 million people from metro areas (fig. 1). Another 10 percent has come from direct foreign immigration. The metro areas had a somewhat faster increase, despite their migration losses to the nonmetro places, because of their much wider margin of natural increase—the surplus of births over deaths —and their disproportionate role as destinations for immigrants. It should be noted though, that the majority of metro areas received some net inflow from other parts of the United States. This was possible because metro outmovement from California and New York was so large that if just those two States were removed from the tabulations, the demographic balance sheet for the rest of the Nation would show some metro growth from domestic migration.

Table 1

Regional population change, 1980-96

All regions have had net migration of people into nonmetro areas since 1990

Region	Population			Change		Net migration		Net migration rate	
	1996	1990	1980	1990-96	1980-90	1990-96	1980-90	1990-96	1980-90
	Thousands			Percent		Thousands		Percent	
United States:									
Nonmetro	53,904	50,903	49,577	5.9	2.7	1,827	-1,370	3.6	-2.8
Metro	211,380	197,816	176,965	6.9	11.8	3,629	6,576	1.8	3.7
Northeast:									
Nonmetro	5,397	5,267	5,018	2.5	5.0	33	45	0.6	0.9
Metro	46,183	45,543	44,119	1.4	3.2	-899	-657	-2.0	-1.5
Midwest:									
Nonmetro	16,524	15,978	16,310	3.4	-2.0	295	-1,047	1.8	-6.4
Metro	45,559	43,691	42,557	4.3	2.7	-89	-2,003	-0.2	-4.7
South:									
Nonmetro	23,694	22,359	21,733	6.0	2.9	849	-459	3.8	-2.1
Metro	69,404	63,095	53,634	10.0	17.6	3,172	4,672	5.0	8.7
West:									
Nonmetro	8,290	7,299	6,516	13.6	12.0	649	91	8.9	1.4
Metro	50,234	45,485	36,655	10.4	24.1	1,445	4,564	3.2	12.5

Note: See appendix for definitions of regions.

Source: Calculated by ERS using data from the Bureau of the Census.

For the most recent single year in which data are available, July 1, 1995 - July 1, 1996, the Census Bureau estimates a preliminary nonmetro population increase of 424,000. This is 23 percent below the upwardly revised estimate of 549,000 for the comparable 1994-95 interval, which is the highest of the post-1990 period. Improved metro employment growth may have contributed to the lower nonmetro increase of 1995-96. Whether this change foreshadows some further slackening of nonmetro growth remains to be seen. U.S. population growth as a whole eased in 1995-96, from diminished amounts of both natural increase and net immigration, and in residential terms, nonmetro areas are estimated to have accounted for all of the growth slowdown. Even so, the nonmetro growth of this most recent year continued to see net inmovement of people.

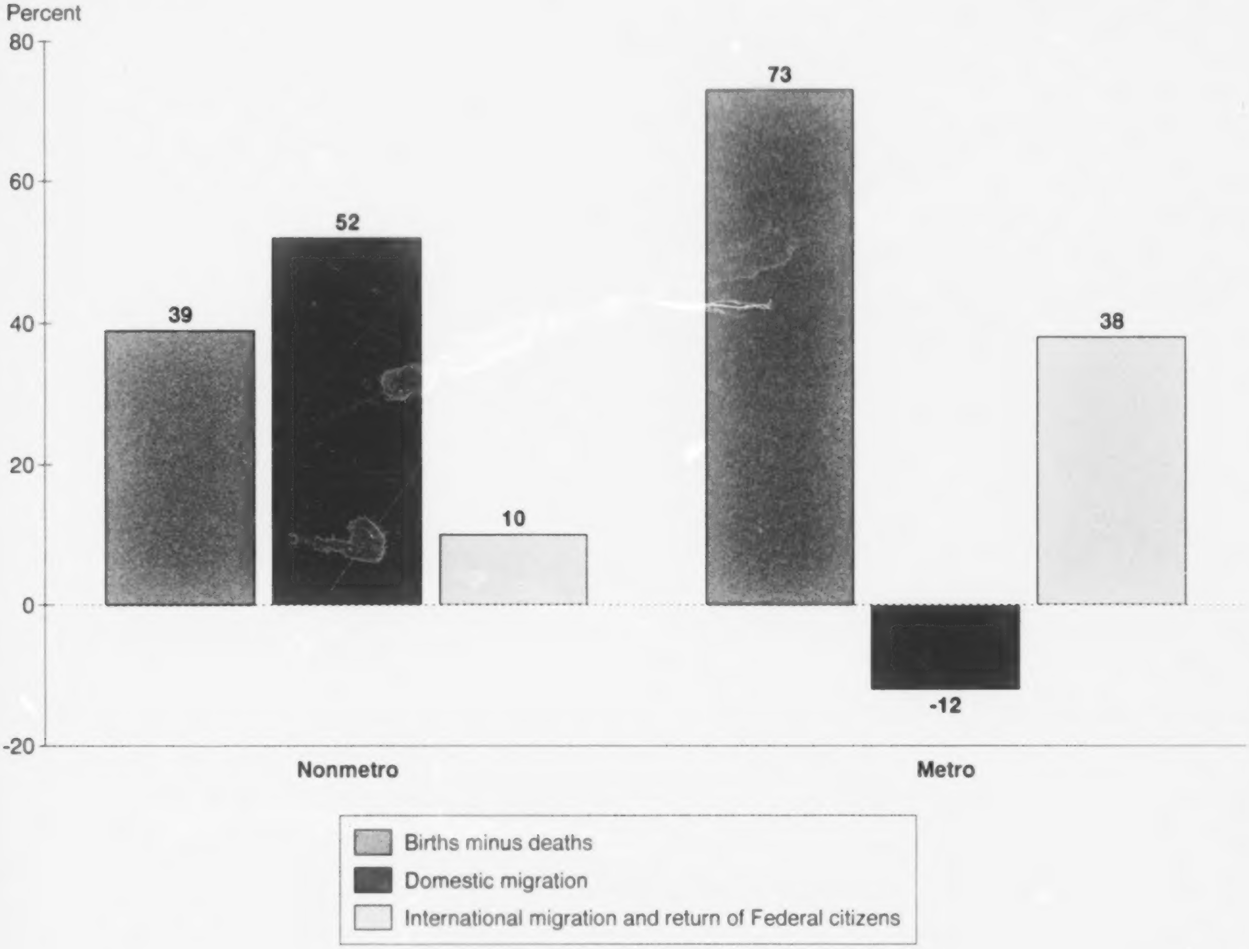
Greater 1990's Retention or Growth of Population Found in All County Types

All broad economic types of nonmetro counties have shared in the rebound of population growth in the 1990's—manufacturing, farming, and mining areas, plus those dependent on government work, services and trade, or having unspecialized economies. But they

Figure 1

Sources of population growth, 1990-96

Nonmetro population increase has depended primarily on migration, while most metro growth has come from the surplus of births over deaths



Source: Bureau of the Census.

have not done so equally. Among these mutually exclusive types, nonmetro counties with economies focused on services and trade had the most rapid average growth—8.4 percent, a pace faster than that in the typical metro area (app. tab. 9). A number of these counties attract retirees and/or are recreational destinations. Retirement-destination counties grew by 16.3 percent, the highest growth rate of any identified type of county. In such counties, nearly 90 percent of the population increase stems from net inmigration. These counties are usually attractive to younger people as well, because of natural or developed amenities, and by far the majority of their growth is among persons under 65. Counties with high levels of recreational activity increased by 11.2 percent. The rapid growth of the retirement and recreation counties indicates noneconomic motivations that have propelled nonmetro population growth in many areas. The fact that per capita income is rising much slower in such places than elsewhere also suggests the role of nonpecuniary forces in shaping recent nonmetro trends. The counties with above average population growth rates have acquired about 80 percent of all nonmetro population gain.

The large block of nonmetro counties specializing in manufacturing had a population increase of 5.2 percent, a figure below the overall nonmetro value. However, these counties were less likely to lose population than were most other types, partly because their comparatively normal age composition made them the least likely to have more deaths than births. Growth in the 500-plus manufacturing counties, however, did not necessarily come from continued gains in manufacturing, for jobs in that segment of the national economy have not been increasing.

Farming- and mining-dependent counties had the lowest rates of overall population increase—4.0 and 2.8 percent, respectively. These traditional rural extractive industry sectors are still shedding workers, even where production is sustained. Half of all farming counties and nearly a third of mining areas fell in population, and where they grew, their growth frequently derived from other sources. Nevertheless, even these two county types generally participated in the larger demographic trend by having less loss than in the 1980's or some growth where there was earlier decline.

Regional Differences in Population Change Remain Strong

The geography of population change reflects these growth patterns. As shown on the map (fig. 2), areas with above-average population increase are very common in the Mountain West. Much of this territory is still thinly settled, but new growth is rapid enough to be noticeable and the character of many places is changing as a result. Elsewhere, the Upper Great Lakes and Ozarks recreation/retirement districts continue to show above-average increases, as do the southern Blue Ridge Mountains counties, northern Florida, and many communities that adjoin thriving metro areas.

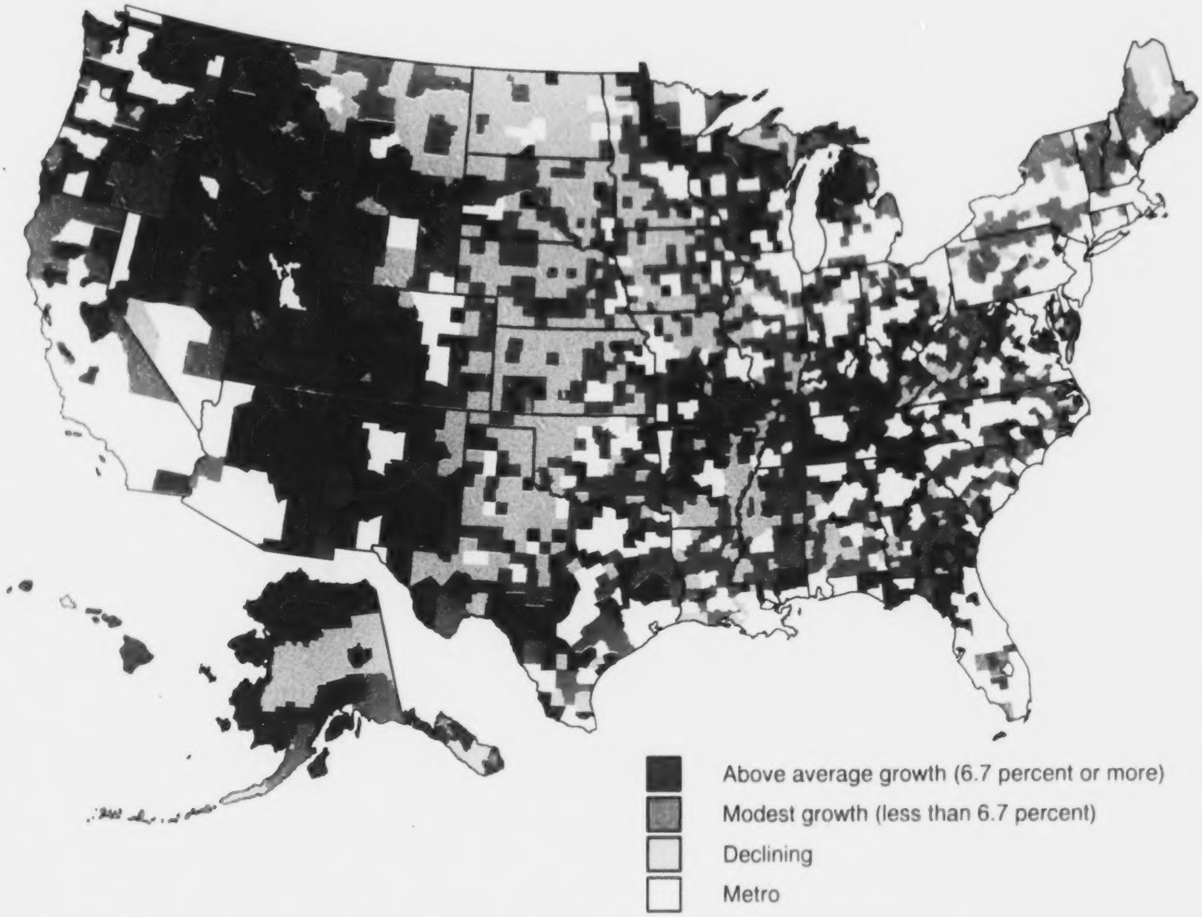
Areas that have declined in population since 1990 are most prevalent in the Great Plains and adjoining parts of the Corn Belt, where continued losses in farm employment have not yet been offset by other job growth. The only significant grouping of declining counties elsewhere is in the lower Mississippi Valley, especially in the Delta. Here, as in most of the Plains and Corn Belt farming areas, declines were typically modest and well below those of the 1980's. Remarkably, the Farm Belt has some counties that have declined in every census since 1900 and have continued to do so through 1996. This illustrates how very lengthy the adjustment process can be to continually falling labor requirements in agriculture, unless other sources of employment are developed.

The eastern half of the country is the most likely to have had population growth at low to average levels of less than 1 percent annually. Such counties often have major dependence on industrial work, even if there is also a farm base, and lack either the widespread amenity attraction of the West or the sparse settlement and farm and ranch dominance of so many of the declining places.

Figure 2

Nonmetro population change, 1990-96

A third of all nonmetro counties grew faster than the Nation as a whole, but a fourth declined


■ Above average growth (6.7 percent or more)
▨ Modest growth (less than 6.7 percent)
░ Declining
☐ Metro

Note: National average growth for this period was 6.7 percent.
Source: Prepared by ERS using data from the Bureau of the Census.

More Than a Fourth of Nonmetro Counties Have Been Having More Deaths Than Births

Over 600 nonmetro counties—more than a fourth of the total—had more deaths than births in the 1990-96 period. In some, the excess of deaths has developed because of extensive inmovement of older people in retirement who later die in the county. In the majority of cases, however, the smaller number of births stems from the aging of the population over several decades, as young adults moved away to opportunities elsewhere, and the smaller family size that most rural families have elected since the end of the Baby Boom. Age-specific birth rates in nonmetro America are not much above metro rates, or the number of children needed for ultimate population replacement. Half of the counties with natural decrease declined in total population, with the great majority of these also losing through net outmigration.

The Older Population Has Begun To Decline in Many Nonmetro Counties

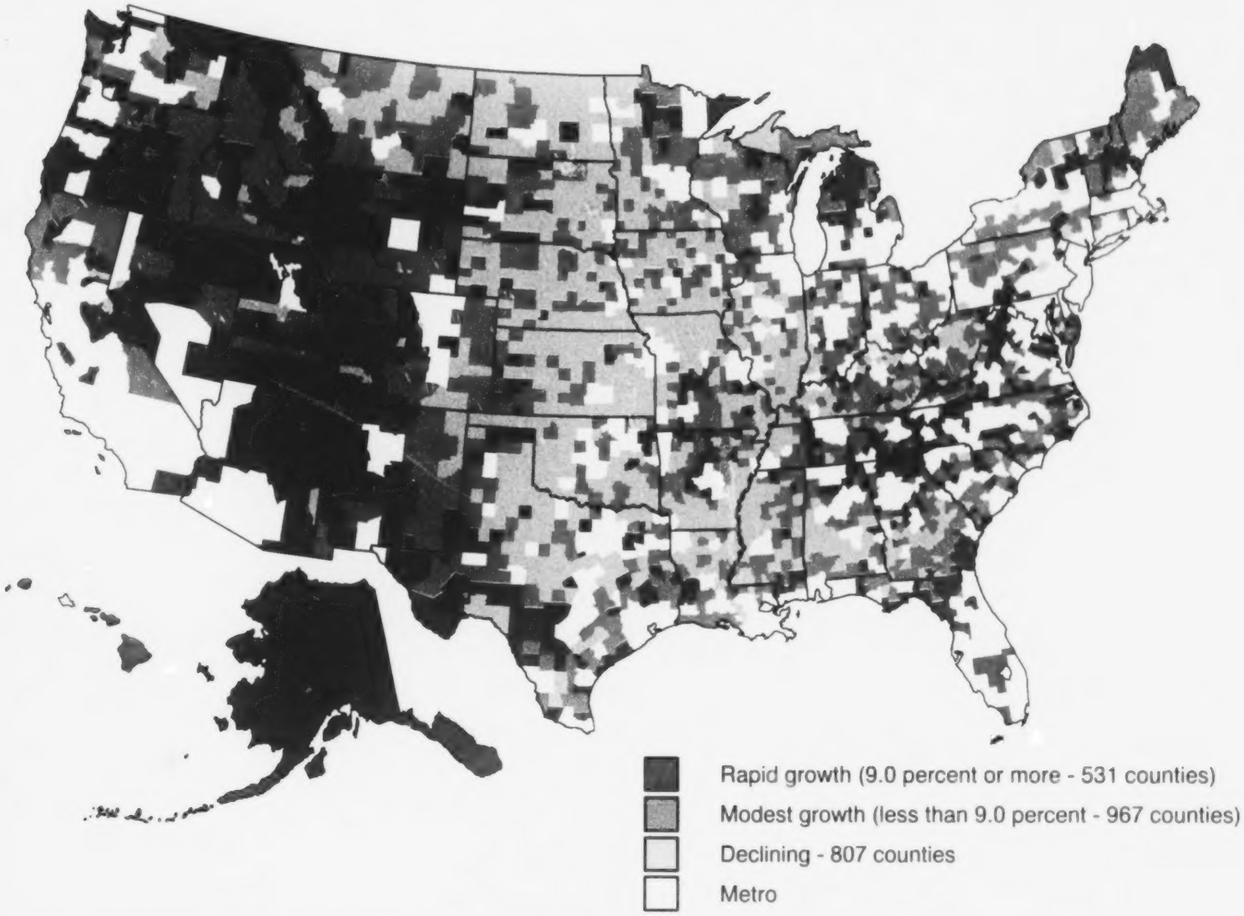
Even though many counties are having more deaths than births through a disproportionately old age structure, this is occurring despite the fact that there are now over 800 counties with declining numbers of people 65 and over (fig. 3). Although the national population 65 and over continued to increase faster than that under 65 from 1990 to 1996 (a growth of 9.0 percent versus 6.3 percent), in nonmetro counties as a whole this was not true. Rather, the nonmetro population under 65 grew somewhat faster than that 65 and over (6.0 percent versus 5.5 percent). This comparison is in sharp contrast to the 1980's when the nonmetro older population had a decade growth of about 15 percent against just 1 percent for the under-65 class. This marked change in trend has meant that despite a rapid increase of older people in the minority of nonmetro counties that we view as significant retirement destinations, the national nonmetro population growth rebound has occurred only among persons under 65.

Fully a third of all nonmetro counties are estimated to have had declining older populations since 1990, more than three times as many as in the 1980's. This trend is believed—like that of natural decrease—to stem heavily from the past depletion during their youth of cohorts now reaching 65, as rural young people moved away to the cities in the 1940's or gave up farming in the 1950's. Thus, the burden of elderly dependency has already started to lessen in many rural areas, both absolutely and proportionately. And this is in advance of the more widespread trend now in place in which people reaching 65 are survivors of the small birth cohorts of the Great Depression era. *[Calvin Beale 202-219-0482 (after October 24, 202-694-5416), cbeale@econ.ag.gov]*

Figure 3

Nonmetro change in the population age 65 and over, 1990-96

Six States' nonmetro areas lost population 65 and over: Illinois, Iowa, Kansas, Nebraska, North Dakota, and Oklahoma


Rapid growth (9.0 percent or more - 531 counties)
Modest growth (less than 9.0 percent - 967 counties)
Declining - 807 counties
Metro

Note: National average growth of the population 65 and over was 9.0 percent.
Nonmetro average growth was 5.5 percent; metro average growth was 10.2 percent.
Source: Prepared by ERS using data from the Bureau of the Census.

Nonmetro Elders Better Off than Metro Elders on Some Measures, Not on Others

A larger share of the nonmetro population was age 60 and older (18 percent) in 1996 than the metro population (15 percent). At ages 75 and older, half of all elderly persons are living alone. This is associated with a greater likelihood of being poor: 42 percent of nonmetro persons age 75 and older were poor or near-poor, compared with 28 percent of their metro counterparts.

The U.S. population is aging, and the number of older Americans is expected to more than double by 2030. Older persons are at greater risk of disability and are more substantial users of health, medical, and other services than the general population. The aging of the population poses new social and policy challenges—the future size of the older population is of fundamental importance for planning budget outlays and assessing the liabilities of federally sponsored health and pension programs. The elderly population is remarkably heterogeneous. The nonmetro elderly have characteristics and needs that differ from the metro elderly. One-quarter of all older persons live in nonmetro areas, many of which are deficient in health and social services. A social and economic profile of the elderly will aid in future planning to meet the needs of this growing segment of the population.

The population age 60 and older in 1996 represents a larger share of the nonmetro population (18 percent) than the metro population (15 percent). Nearly 6 percent of the nonmetro population and 5 percent of the metro population were age 75 and older in 1996. The survey data used in this article exclude the institutionalized older population, which represents 5 percent of the older population. As the aging process itself leads to a number of changes in an individual's health, social, and economic circumstances, comparisons are made between the young old, ages 60-74 years, and the oldest old, ages 75 and older. The pre-retirement age group 55-59 is used as a comparison group.

The accompanying population pyramids for metro and nonmetro areas (fig. 1) reflect a similar age-sex distribution of the population age 55 and older. Women outnumber men at older ages. The proportion of females was higher than males at ages 70 and older and increased with each age bracket. In 1996, there were 5 million women age 60 and older to 4 million men in nonmetro areas, and 18 million older women to 14 million older men in metro areas. The difference between the number of men and women increases with advancing age—by age 75, women outnumber men almost 2 to 1. In nonmetro areas, there were 1.9 million women age 75 and older to 1.1 million men, and in metro areas, there were 6.5 million elderly women to 3.9 million men.

A Smaller Proportion of Minority Elders Reside in Nonmetro Than in Metro Areas

The older population is predominantly White; in 1996, 93 percent of nonmetro persons age 60 and older were White, and 88 percent of metro persons age 60 and older were White. In 1996, nearly 10 percent of metro elders age 60-74 were Black, compared with 6 percent of nonmetro elders; 7 percent of 60- to 74-year-olds in metro areas were of Hispanic origin, compared with 3 percent of their nonmetro counterparts. Minorities are a smaller share of the older population than of the general population; 14 percent of all metro residents and 9 percent of nonmetro residents were Black. Hispanics represented 12 percent of the metro population and 5 percent of the nonmetro population. The older population is becoming more racially and ethnically diverse, and greater ethnic and racial diversity will characterize the elderly population in the 21st century.

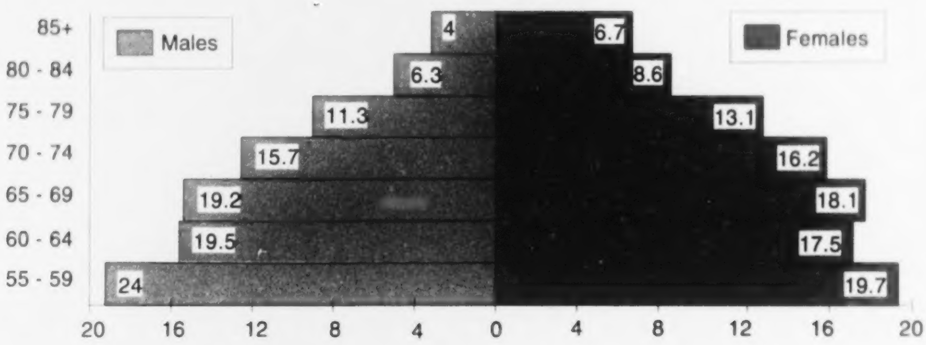
The Nonmetro South Has the Largest Share of the Elderly

The older population is concentrated in the South; also a substantial proportion of the nonmetro elderly resides in the Midwest. Among nonmetro elders ages 60-74, 46 percent resided in the South and 31 percent in the Midwest in 1996. Among their metro counterparts, 34 percent were in the South and 21 percent in the Midwest. The regional distribution of the older population does not differ from that of the general population. Many regions dependent on farming and mining, and with a prior history of slow growth and net outmigration—such as the Corn Belt, Great Plains, and Southern Appalachian Coal Fields—have been aging through the loss of young adults. Some areas have gained older residents, largely because of an influx of retirees. Other areas have sustained decade-long losses of outmigrating, young working-age people, while older persons have remained and become an ever-increasing proportion of the total population. This changing geographic distribution of the older population has resulted in disparities between resources and needs—such as medical services, social services, housing, and long-term care—in communities, regions, and States. As noted in the previous article in this issue on Population, many counties have been experiencing declining numbers and proportions of the population 65 and older since 1990, as migration-depleted middle age groups move into older ages and the younger population holds steady or grows.

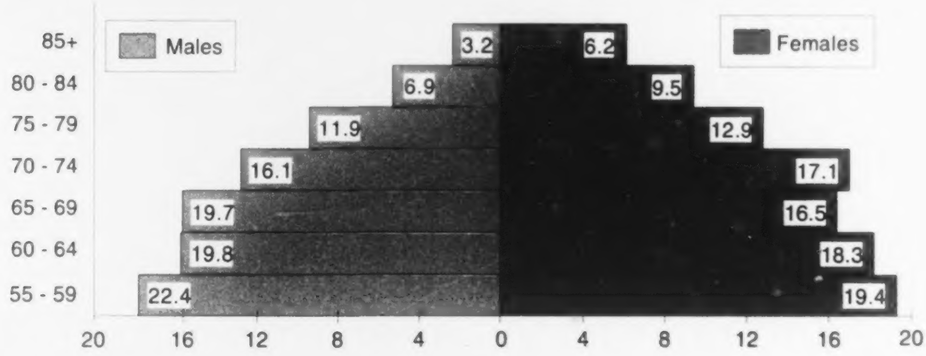
Figure 1

Percent distribution of metro persons 55 and older by age and sex, 1996

At age 70 and older, the proportion of females is greater than that of males



Percent distribution of nonmetro persons 55 and older by age and sex, 1996



Source: 1996 March Current Population Survey (CPS) data file.

The Likelihood of Widowhood and Living Alone Increases with Advancing Age

Nonmetro older persons are more likely to be married than their metro counterparts; in 1996, 71 percent of nonmetro and 66 percent of metro persons age 60-74 were married (fig. 2). Widowhood increases with advancing age; by age 75, 48 percent of metro and 50 percent of nonmetro elders were widowed. The female population is more likely to be widowed. In 1996, 82 percent of nonmetro widowed persons age 60 and older were female. A person's marital status also affects whether one lives alone. The likelihood of living alone increases with advancing age; by age 75, 51 percent of nonmetro elders and nearly 48 percent of metro elders were living alone (fig. 3). Persons living alone are more likely to experience poverty.

Nonmetro Elderly Are Not Healthier Than Their Metro Counterparts

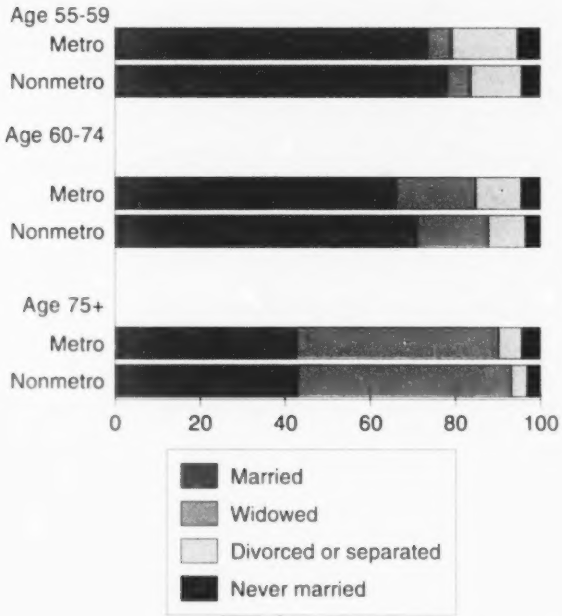
Nonmetro elders were more likely to assess their health as fair or poor (28 percent of 65- to 74-year-olds in 1994) than metro elders (24 percent) (fig. 4). With advancing age, more self-assessments of health shifted to fair or poor, and nonmetro elders continued to report poorer health than their metro counterparts. At age 75 and older, 35 percent of nonmetro and 29 percent of metro elders rated their health as fair or poor. In 1996, 27 percent of 60- to 74-year-olds in nonmetro areas and 20 percent in metro areas reported having a health problem. By age 75, this residential difference had widened; 43 percent of nonmetro elders versus 30 percent of metro elders reported health problems.

Despite differences in self-assessed health status, comparable proportions of nonmetro and metro elders were covered by Medicare; about 65 percent at ages 60-74 and 98 percent at ages 75 and above. However, nonmetro elders are more likely than metro elders to have to travel longer to reach their usual source of care. Since many nonmetro areas are deficient in health care and social services, the lesser availability of services may cause a greater number of elderly persons in nonmetro areas to have unmet needs.

Figure 2

Percent distribution of persons 55 and older by marital status and residence, 1996

A pronounced increase in the percentage widowed occurs with advancing age

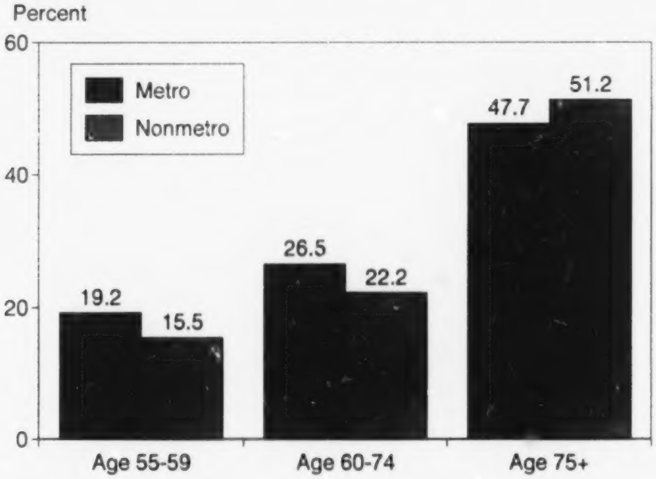


Source: 1996 March Current Population Survey (CPS) data file.

Figure 3

Percentage of persons 55 and older living alone, by residence, 1996

The likelihood of living alone increases with age, more so for nonmetro elderly persons

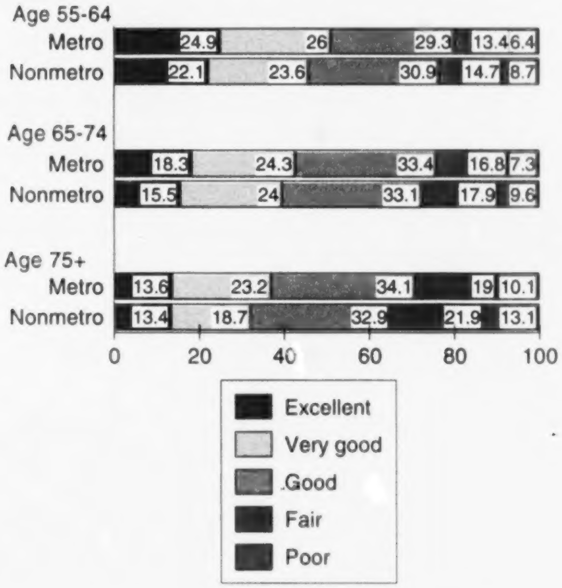


Source: 1996 March Current Population Survey (CPS) data file.

Figure 4

Percent distribution of persons 55 and older by health status and residence, 1994

The nonmetro older population was more likely to assess their health as fair or poor than their metro counterparts



Source: 1994 National Health Interview Survey (NHIS) data file.

The Nonmetro Elderly Are Less Educated Than Their Metro Counterparts

While 26 percent of metro elders age 60-74 had not graduated from high school, 36 percent of nonmetro elders had not graduated (fig. 5). An even more striking difference is found among the oldest old; 38 percent of metro and 52 percent of nonmetro elders 75 and older had not completed high school. This educational gap may have placed the nonmetro older population at a financial disadvantage throughout their working careers, resulting in higher poverty rates and lower retirement incomes.

A major shift in labor force participation occurs between ages 55-59 and 60 years and older due to retirement or partial retirement. In 1996, 63 percent of nonmetro persons age 55-59 were employed, declining to 27 percent of those age 60-74 and 5 percent of the oldest old (fig. 6). Typically, persons age 60 and older are not in the labor force because of retirement; a somewhat lower proportion of nonmetro elders was retired in 1996 than metro elders. A greater share of nonmetro elders was not in the labor force due to disability—nearly 9 percent of nonmetro persons age 60-74 were disabled, compared with 5 percent of their metro counterparts.

Nonmetro Elders Had Lower Incomes Than Metro Elders at Each Age Over 55

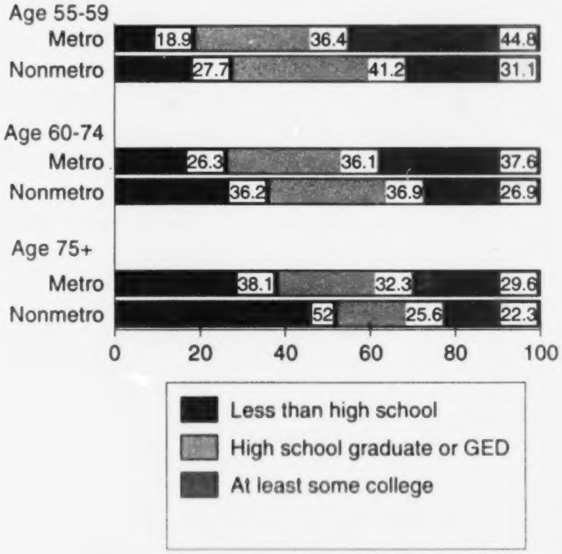
The income gap appears to have narrowed somewhat by age 75, where the median income was $11,024 for metro and $9,520 for nonmetro oldest old (fig. 7). Income differences by race are large. For nonmetro persons age 60-74, median income was $11,489 in 1995; White median income was $12,037, and Black median income was $7,025.

Nonmetro elders depended somewhat more on Social Security income than metro elders, who were more likely to have other sources of retirement income. Among 60- to 74-year-olds, 75 percent in nonmetro areas received Social Security income compared with 69 percent in metro areas. There was less disparity at age 75 and older, though nonmetro elders were still more likely to depend on Social Security—95 percent of nonmetro and 93

Figure 5

Percent distribution of persons 55 and older by educational attainment and residence, 1996

The nonmetro older population was less educated than the metro population, with a marked educational gap among the oldest old



Source: 1996 March Current Population Survey (CPS) data file.

percent of metro elders received such income. Thirty percent of metro persons age 60 and over received retirement income other than Social Security, compared with 24 percent of nonmetro elders. Monthly Social Security benefits in 1990 averaged $60 less for beneficiaries 65 years of age or older in nonmetro areas ($539) than for those in metro areas ($599).

Poverty Rates of the Nonmetro Elderly Are Higher Than Those of Metro Residents

At ages 60-74, nearly 11 percent of nonmetro elders were poor and 14 percent near-poor (100-149 percent of poverty level), compared with 9 percent poor and 10 percent near-poor among metro elders (fig. 8). The residential difference in poverty is more pronounced among the oldest old. For those 75 years and older, 42 percent of nonmetro elders were poor or near-poor, compared with 28 percent of their metro counterparts. A higher proportion of the nonmetro than metro elderly population is 75 years or older, and older age among the 60 and older population is associated with a higher likelihood of being poor.

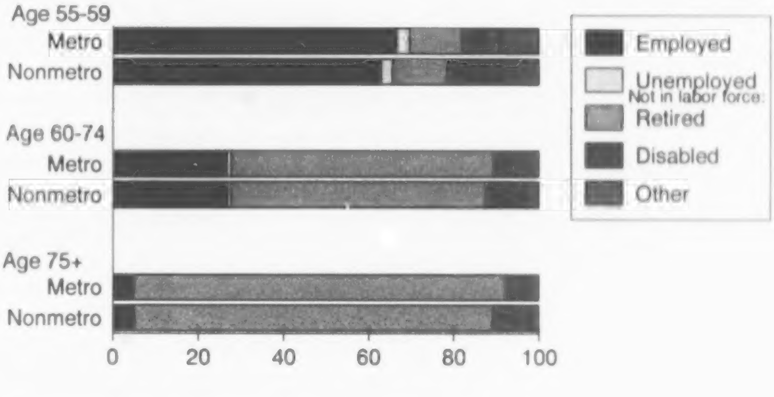
Minorities comprise a larger share of the poor older population than would be expected based upon their small representation among the elderly. In 1995, 81 percent of the poor population age 60-74 in nonmetro areas was White and 17 percent Black. A similar racial pattern is found for the oldest old—84 percent of the poor age 75 and older were White and 15 percent Black in nonmetro areas.

Older persons living alone are also more likely to be poor. Regardless of metro-nonmetro residence, 62 percent of the poverty population ages 60-74 were living alone. This is more pronounced for the oldest old, with 83 to 84 percent of the poverty population age 75 and older living alone. The elderly poor have less access to support services, good housing, adequate nutrition, and transportation, and are apt to be less healthy than their wealthier counterparts.

Figure 6

Percent distribution of persons 55 and older by labor force status and residence, 1996

Major shifts out of the labor force occur with advancing age, due to retirement and disability



Source: 1996 March Current Population Survey (CPS) data file.

The Nonmetro Elderly 65 Years and Older Are More Likely To Own Their Own Homes Than Their Metro Counterparts

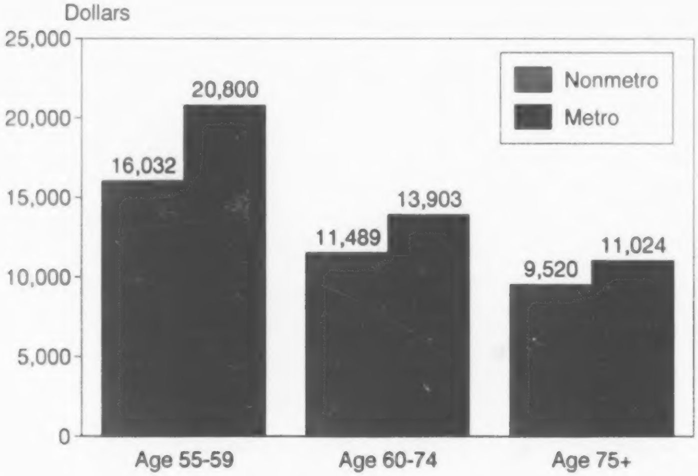
In 1995, 84 percent of nonmetro households with persons age 65 and older owned their homes, compared with 76 percent in metro areas, although the nonmetro elderly's homes were typically of lower value. Housing units in nonmetro areas tend to have more physical problems than those in metro areas. In 1995, nearly 6 percent of elderly housing units in nonmetro areas had moderate physical problems and 3 percent had severe problems. This compares with 3 percent of metro elderly housing units having moderate problems and 2 percent severe physical problems.

The U.S. population continues to age; the growth rate of the older population will be relatively modest over the next decade, but when the Baby Boom generation begins turning 65 in 2011, this segment of the population will experience rapid growth rates. The older population is widely distributed throughout the country, although nonmetro areas generally have higher proportions of the population age 60 and older. Issues such as access to medical and social services are more critical for the nonmetro elderly due to the lesser availability of such services in low-density areas. Because of the diversity in the nonmetro population and differing patterns of growth in the nonmetro elderly, local communities will need to adapt different strategies and policies to meet the needs of the elderly. *[Carolyn C. Rogers, 202-501-8107 (after October 24, 202-694-5436), crogers@econ.ag.gov]*

Figure 7

Median income of persons 55 and older by residence, 1996

The median income of the nonmetro elderly was lower than that of the metro elderly

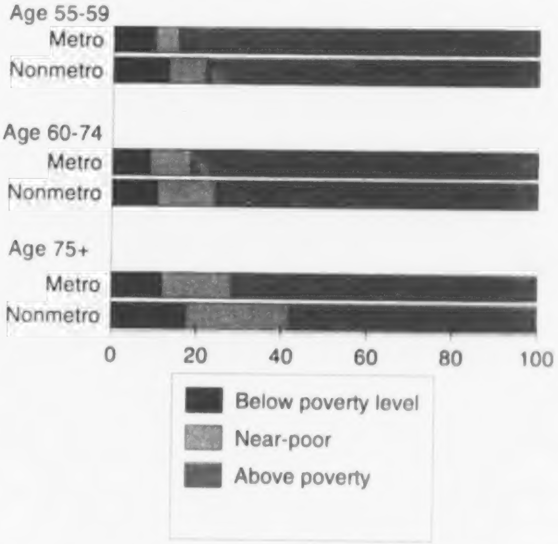


Source: 1996 March Current Population Survey (CPS) data file.

Figure 8

Percent distribution of persons 55 and older by poverty status and residence, 1996

A larger proportion of the nonmetro elderly are poor or near-poor



Source: 1996 March Current Population Survey (CPS) data file.

Fewer Immigrants Settle in Nonmetro Areas and Most Fare Less Well than Metro Immigrants

Recent attention to the issue of immigration in the United States has led to the addition of questions about immigration status to the Current Population Survey. Data from the March 1996 version show that Mexico has been the single largest source of immigration to the nonmetro United States, that a large proportion of nonmetro immigrants are children, and that nonmetro immigrants generally have lower earnings, higher unemployment, and higher poverty rates than metro immigrants and nonmetro natives. Fewer immigrants live in nonmetro areas than in metro, but they are concentrated in particular areas.

Current debate on such issues as immigration and welfare reform has brought increased attention to the need for information on the characteristics of the immigrant population in the United States. In 1996, 24.6 million persons in the United States were foreign-born, representing 9 percent of the U.S. population. Although most foreign-born persons (95 percent) resided in metro areas, comprising 11 percent of the metro population, immigrants who settled in nonmetro areas were concentrated in a few places. While comprising only 2 percent of the total nonmetro population, immigration patterns that follow employment opportunities and kinship and community migration networks have led to relatively dense pockets of nonmetro immigrant settlement. In the small towns and communities of rural America, such concentrations may have significant social and economic effects on host communities.

For example, in Imperial County, California, along the border with Mexico, 40 percent of the county's 30-percent population increase since 1990 has been the result of immigration. Similarly, in two Texas border counties, Maverick and Starr, over 40 percent of their population increases since 1990 (28 percent in Maverick; 33 percent in Starr) have been the result of immigration. Finney County, Kansas, the site of large meatpacking facilities, has seen a population increase of 7.5 percent since 1990, over 50 percent of it the result of immigration.

As these figures suggest, immigrants residing in nonmetro areas in 1996 were not evenly distributed throughout the United States. Thirty-seven percent of all nonmetro immigrants lived in the South, followed by 35 percent in the West and 14 percent each in the Northeast and the Midwest (fig. 1). These regional distributions, however, obscure concentration of nonmetro immigrant settlement in particular States. In the South, for example, Texas, home to 17 percent of the total U.S. nonmetro immigrant population, accounted for 46 percent of all nonmetro immigrants residing in the South. North Carolina, with the second largest proportion of immigrant residents in the South, was home to only 12 percent of that region's nonmetro immigrant population. Overall, only 2 percent of the nonmetro population in the South were immigrant. The West had the largest proportion of nonmetro immigrant population—7 percent—followed by the Northeast with 3 percent. In the Midwest, only 1 percent of the nonmetro population were foreign-born.

Metro immigrants displayed a slightly different pattern, reflecting the location of the urban centers that are home to the highest proportions of immigrants—Los Angeles, New York, and Miami.

Mexico Largest Single Source of Nonmetro Immigrants

Mexico has been the largest source of nonmetro immigrants in recent years, and the proportion of nonmetro immigrants coming from Mexico has been increasing, from 40 percent for immigrants arriving before 1980, to 48 percent for immigrants of the 1980's and 57 percent of those who have arrived in the 1990's (fig. 2). Asia has risen from being the third largest source of nonmetro immigrants who entered the United States before 1980 to the second largest source for more recent immigrants. Meanwhile, Europe has fallen behind both Asia, and Central and South America and the Caribbean as a source of nonmetro immigrants since 1980.

The proportion of metro immigrants from Mexico has remained consistently around one-fourth. A larger proportion of metro than nonmetro immigrants has come from countries in Central and South America, and the decline of European immigrants and the rise of Asian immigrants has been much more pronounced among metro immigrants.

Older Immigrants More Often Naturalized Citizens than Younger Immigrants. . .

Many characteristics of immigrants depend on when they arrived in the United States and on whether or not they become naturalized citizens or remain noncitizens. Year of entry and citizenship status are somewhat interdependent, since adult immigrants must live in the United States for at least 5 years before becoming eligible for naturalization; the more recent the immigrant, the less likely he or she will be naturalized simply on procedural grounds. Foreign-born children of immigrants generally become citizens when their parents are naturalized; U.S.-born children of immigrants become citizens at birth and are not included in the immigrant population.

Regardless of year of entry, however, nonmetro immigrants were more likely to be naturalized citizens (37 percent) than metro immigrants (32 percent). Older immigrants also were more likely to have become naturalized citizens. Among those age 35 and older, for both nonmetro and metro residences and all years of entry, immigrants who had become naturalized outnumbered those who had remained noncitizens, unlike those in younger age groups. Thus, measures of the characteristics of naturalized citizens, who generally fare better than noncitizens in such areas as educational achievement, earnings, and poverty status, partially reflect their older age structure.

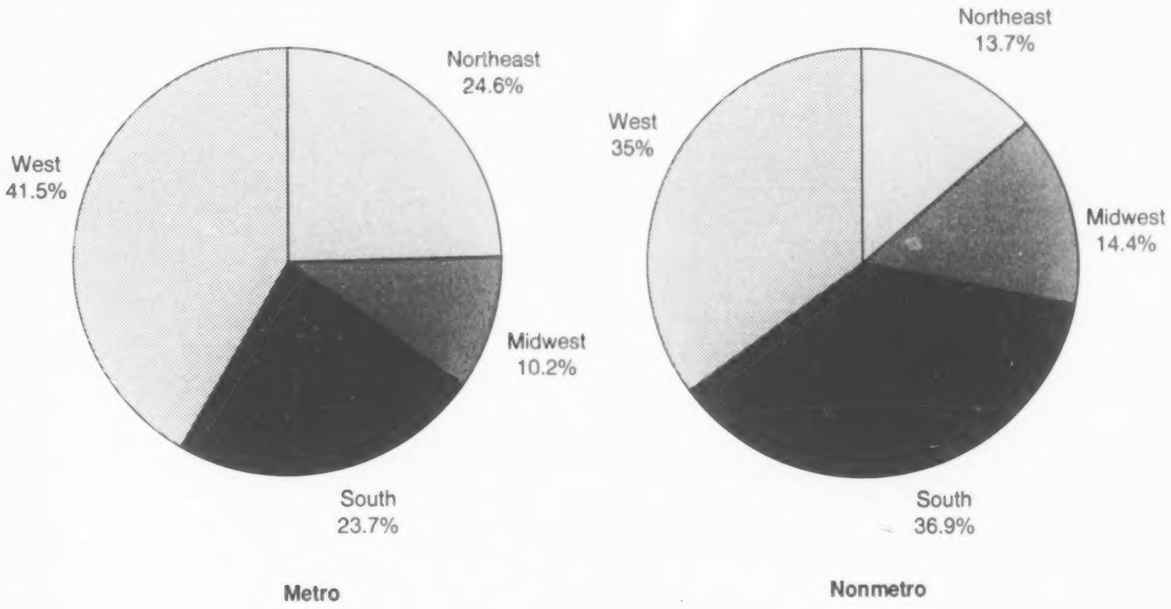
. . .but Many Recent Nonmetro Immigrants, Naturalized and Noncitizen, Are Children

A striking age difference appeared between metro and nonmetro immigrants who entered the United States since 1980, as well as between nonmetro immigrants and the native nonmetro population. Among nonmetro immigrants, 38 percent of naturalized citizens and 24 percent of noncitizens were under 18, compared with 12 percent of naturalized citizens and 19 percent of noncitizens in the metro immigrant population and 28 percent

Figure 1

Foreign-born population by region, 1996

Nonmetro immigrants are concentrated in the South and West



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

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in the native nonmetro population (fig. 3). This large proportion of children among nonmetro immigrants, especially among citizens, may have implications for the cost of immigration in nonmetro communities, particularly for public education.

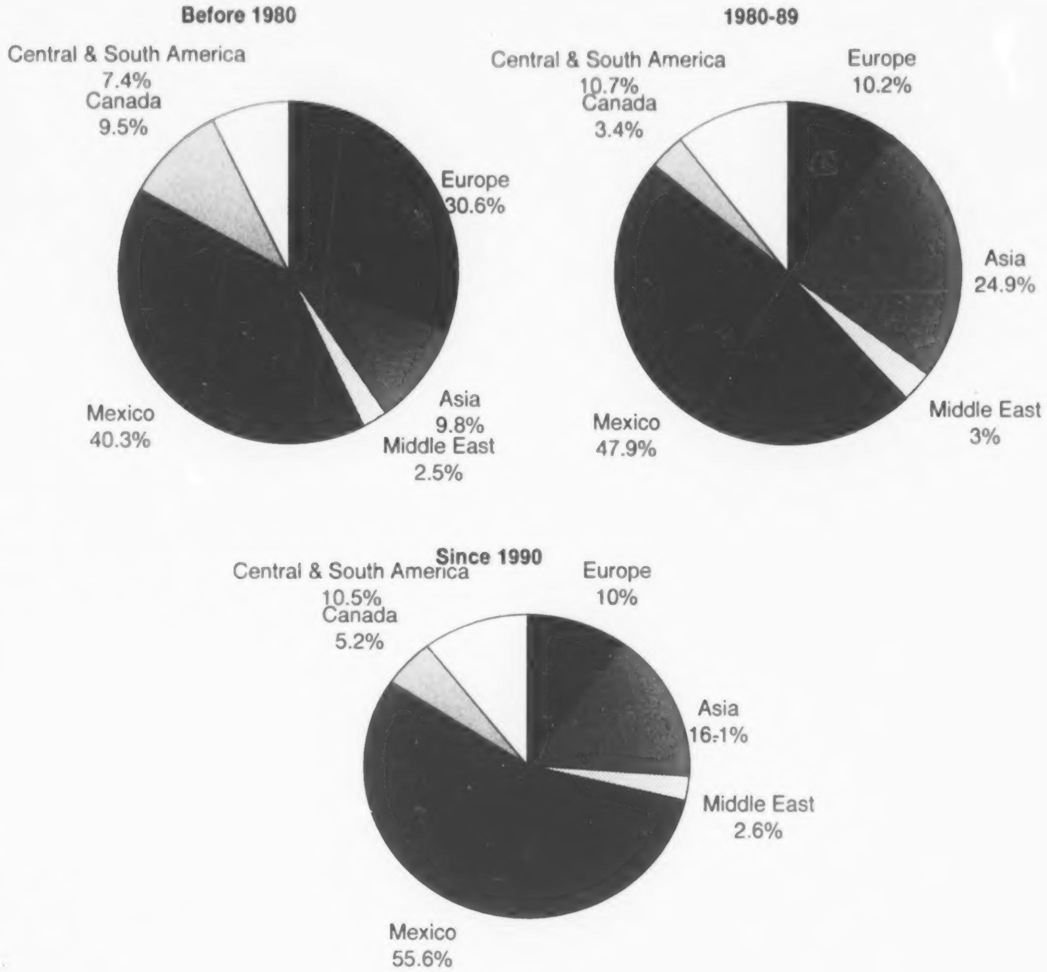
Nonmetro Immigrants Less Likely Than Metro To Have Finished High School or College

Nonmetro immigrants age 25 and older were generally less likely than their metro counterparts to have finished high school or college and the difference has become more pronounced among more recent immigrants. Metro immigrants who have arrived since 1980 include decreasing proportions with less than a high school education, while among nonmetro immigrants, that proportion has remained steady.

Figure 2

Country of origin of nonmetro foreign-born persons

Immigration from Mexico and Asia has increased while immigration from Europe has declined



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

Citizenship status affected this generalization, however. Those nonmetro immigrants who had become naturalized citizens reported higher levels of educational achievement than metro immigrants who remained noncitizens.

Occupations of Nonmetro Immigrants Vary by When They Entered the United States

A fairly large share of employed naturalized immigrants in nonmetro areas who entered the country before 1990 worked in managerial and professional occupations (14 percent managerial, 17 percent professional, compared with 9 and 11 percent, respectively, of nonmetro natives). This reflects both special immigration provisions for workers with relatively scarce professional skills and the amount of time these earlier immigrants have had in the United States to become established in such occupations. Naturalized nonmetro immigrants also frequently reported service, craft and repair, and machine operator and assembler occupations. Among this group of earlier nonmetro immigrants, those who remained noncitizens most commonly worked in machine operation and assembly (16 percent); craft and repair (15 percent); farming, forestry, and fishing (14 percent); and service (13 percent) occupations.

More recent nonmetro immigrants (since 1990) worked in somewhat different occupations. Among those who had become naturalized citizens, the largest concentration worked in farming, forestry, and fishing (18 percent). Other frequently reported occupations among this group included clerical (18 percent), sales (12 percent), and transportation (10 percent). Among recent nonmetro immigrants who still remained noncitizens, the most frequently reported occupations were service (15 percent) and transportation (14 percent).

Metro immigrants, regardless of year of entry, reported higher proportions working in service, clerical, and technical occupations than in other sectors; nonmetro natives reported clerical and sales occupations more frequently than did nonmetro immigrants, and showed a much more even distribution across occupational categories than did immigrants.

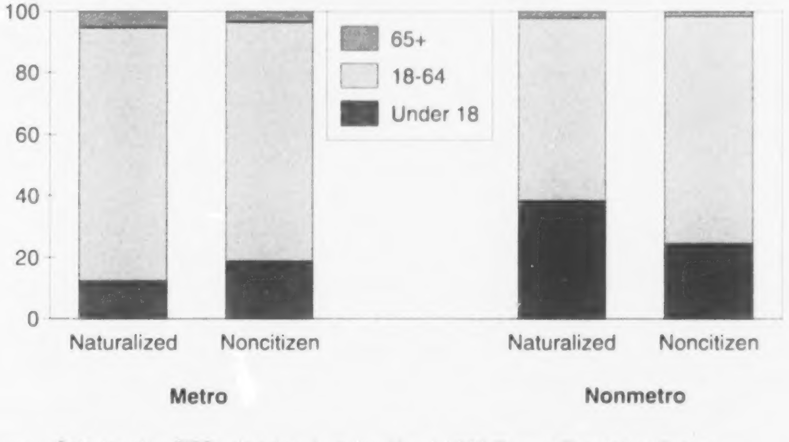
Nonmetro Immigrants Have Lower Median Earnings Than Metro Immigrants and Nonmetro Natives

Median earnings varied considerably between metro and nonmetro residence, but the benefit of metro residence was greatest for immigrants who had been in the country the longest. Median earnings for nonmetro immigrants who entered the United States before

Figure 3

Age distribution of the foreign-born population entering since 1980

Proportion of children is higher among nonmetro than metro immigrants



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

1980 were only 76 percent of that for immigrants in metro areas. For immigrants who entered between 1980 and 1989, however, median earnings for nonmetro residents were 86 percent of the metro median, and for the most recent immigrants (arrived since 1990), nonmetro residents earned 89 percent of the median for metro residents.

This increasing similarity of median earnings between metro and nonmetro immigrants as time in the United States decreased reflects proportionately lower earnings for more recently arrived immigrants to metro areas than for nonmetro immigrants. Median earnings for metro immigrants who arrived before 1980 reached $21,000, compared with $16,000 for the same nonmetro group. For those metro immigrants who arrived during the 1980's, the median reached only $15,000, compared with $13,000 for nonmetro immigrants who entered during that decade. Among the most recent immigrants, metro median earnings were only $11,840, compared with $10,533 for recent nonmetro immigrants.

Nonmetro naturalized citizens fared better than nonmetro noncitizens, however. In all year-of-entry categories, nonmetro naturalized citizens had higher median earnings than the median for nonmetro natives, possibly reflecting the high frequency of well-paid managerial and professional occupations among naturalized citizens in nonmetro areas. Noncitizens, in contrast, had lower median earnings than nonmetro natives across all year-of-entry categories.

Unemployment and Poverty Rates Highest for Nonmetro Immigrants

Earnings may have been affected by the fact that nonmetro immigrants were more likely to be unemployed than metro immigrants and nonmetro natives, particularly if they were noncitizens. The highest unemployment rates were for recent (since 1990) nonmetro immigrants (10 percent of naturalized citizens; 11.4 percent of noncitizens). Least likely to be unemployed were metro immigrants who entered before 1980 (5.4 percent for noncitizens; 2.4 percent for naturalized citizens).

As a result of lower earnings, a larger proportion of immigrants than natives were below the poverty line in both metro and nonmetro areas. Poverty rates were higher for noncitizens in both metro and nonmetro areas and were highest for immigrants who had been in the country the shortest time. For all but the most recent immigrants (arrived since 1990), rates were highest in nonmetro areas.

Nonmetro Immigrants Generally Receive Government Assistance at Lower Rates than Metro Immigrants

Nonmetro immigrants across all year-of-entry categories received public assistance income, including Aid to Families with Dependent Children (AFDC), at about the same rate (2.3 percent) as natives (2.2 percent) and at a lower rate than metro immigrants (3.1 percent) (fig. 4). Within year-of-entry categories, those nonmetro immigrants who came to the United States before 1980 and those who arrived since 1990 received public assistance at lower rates than natives (1.2 percent and 1.6 percent, respectively), while nonmetro immigrants who arrived during the 1980's received public assistance at a higher rate (3.7 percent) than natives. For metro immigrants, the pattern was slightly different, with a relatively low rate for those arriving before 1980 (1.9 percent, below the native metro rate of 2.4 percent), but with similar rates for those arriving in the 1980's (3.7 percent) and 1990's (3.4 percent).

The rates for receipt of Food Stamps, a noncash benefit, followed a different pattern. For all nonmetro immigrants, the rate for receipt of Food Stamps (12.6 percent) exceeded that for nonmetro natives (11.5 percent), although remaining, like cash assistance, below that for metro immigrants (17.4 percent) (fig. 4). When examined by year-of-entry categories, nonmetro immigrants who arrived before 1980 had the lowest rate (2.7 percent), well below that for native residents. Nonmetro immigrants who arrived after 1990 received Food Stamps at a higher rate (14.3 percent) than natives, but at a much lower rate than nonmetro immigrants who arrived during the 1980's (20.4 percent).

The earliest metro immigrants, those who arrived before 1980, had a higher rate of Food Stamp use (7.4 percent) than nonmetro immigrants, although still below the native metro rate (10 percent). Metro immigrants who arrived in the 1980's received Food Stamps at a lower rate (13.9 percent) than did those who arrived in the 1990's (16.2 percent).

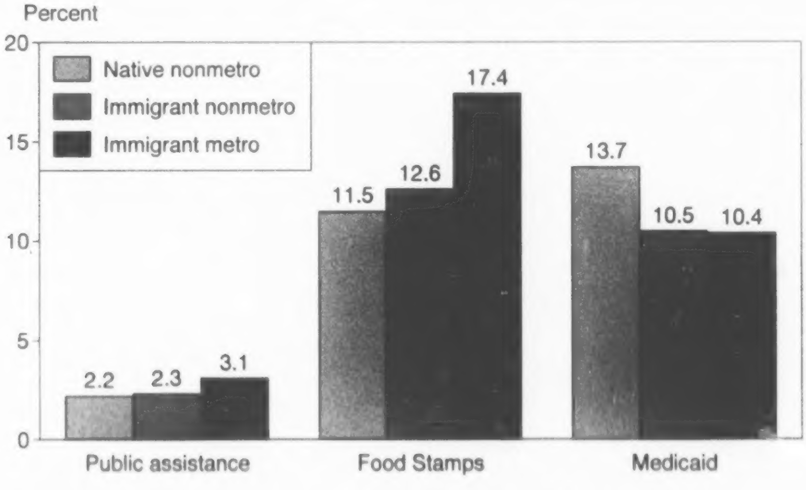
Metro and nonmetro immigrants received Medicaid, another noncash benefit, at the same rate (10.4 percent and 10.5 percent), and both rates were below those for metro and nonmetro natives (11.5 percent and 13.7 percent) (fig. 4). Similar to the pattern for Food Stamp use, nonmetro immigrants who entered during the 1980's had the highest rate of Medicaid use (18.2 percent), followed among nonmetro immigrants by those who arrived in the 1990's (9.1 percent) and those who arrived before 1980 (6.1 percent). For metro immigrants, the highest rate for receipt of Medicaid benefits occurred among immigrants who arrived in the 1990's (16.9 percent), followed by those who arrived in the 1980's (13.5 percent) and those who arrived before 1980 (9 percent).

New eligibility rules for both income assistance and noncash benefit programs under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (commonly known as the Welfare Reform law) will affect receipt of government assistance by noncitizen immigrants. Because nonmetro immigrants overall have received such assistance at lower rates than metro immigrants, these changes may have a smaller impact in nonmetro areas. Moreover, the new welfare eligibility rules allow noncitizen immigrants who have worked or whose spouse or parents have worked for at least 10 years (40 quarters), to continue to receive government assistance. This may further reduce the impact of rule changes on nonmetro areas since the highest rate of receipt among nonmetro immigrants of both income and noncash benefits was for those who arrived in the 1980's, many of whom may qualify to retain benefits. On the other hand, the greater prevalence of seasonal agricultural workers among the nonmetro immigrant population may cause the rule changes to have a greater effect in some areas, since minimum continuous work requirements may be harder for them to document. *[Anne B. W. Effland, 202-501-8448 (after October 31, 202-694-5319), aeffland@econ.ag.gov, and Margaret A. Butler, 202-219-0534 (after October 24, 202-694-5417), mbutler@econ.ag.gov]*

Figure 4

Foreign-born and native nonmetro population receiving government assistance

Nonmetro immigrants receive most government assistance at lower rates than metro immigrants



Source: Calculated by ERS using data from the March 1996 Current Population Survey.

Births to Unmarried Mothers Are Rising Faster in Rural Areas

The proportion of births to unmarried mothers is higher in urban areas but rising faster in rural areas. Unmarried teenagers accounted for one of every nine births in rural areas in 1994, a larger share than in urban areas.

The proportion of births to unmarried mothers has been rising in the United States since the 1960's. By 1994, nearly one-third of all U.S. births occurred outside marriage. The reasons for the rise in nonmarital births are not entirely clear, but the increase has been accompanied by major changes in attitudes toward marriage and sexual behavior. Many observers regard the shift of childbearing outside marriage as an indication of the breakdown of the traditional family. The increase in nonmarital births has provoked great concern among policymakers because children raised in single-parent families are less likely to do well in school or find regular jobs than children from two-parent families.

Urban-Rural Differences in Nonmarital Childbearing Have Narrowed

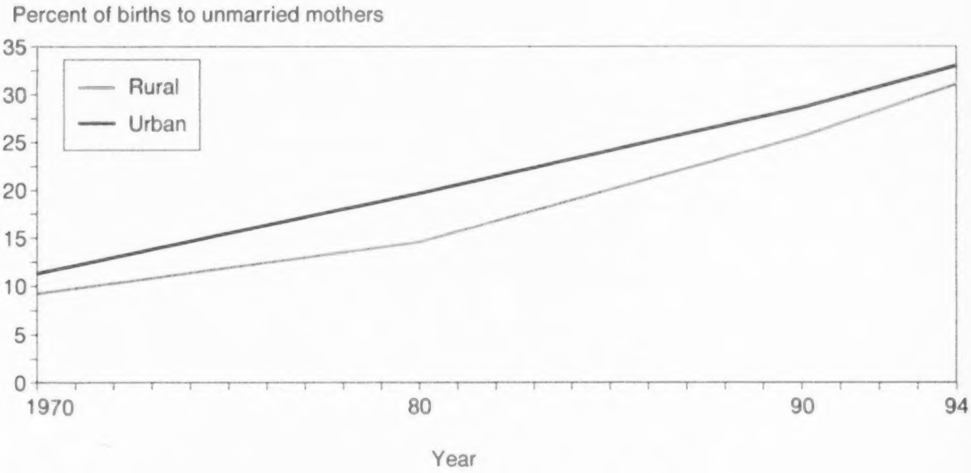
Rural residents tend to have more traditional beliefs about marriage and sexual behavior than urban residents, and are more likely to be married. Nevertheless, childbearing outside marriage has increased in rural areas as well as urban areas during the past quarter-century (fig. 1). The proportion of nonmarital births has remained higher in urban areas but has increased more rapidly in rural areas since 1980, narrowing the urban-rural difference in nonmarital childbearing. By 1994, unmarried mothers accounted for 31 percent of rural births and 33 percent of urban births.

Nonmarital childbearing has increased among both Blacks and Whites, but is far more common among Blacks. At the national level, nearly three-fourths of Black births occurred to unmarried mothers in 1994, compared with one-fourth of White births. The racial difference in nonmarital childbearing contributed to the higher proportion of nonmarital births in urban areas because Blacks represent a larger share of the urban than rural population. However, there was little difference in the trend in nonmarital childbearing between urban and rural Blacks or between urban and rural Whites (fig. 2). In fact, urban-rural differences in the proportion of nonmarital births have diminished among

Figure 1

Trend in nonmarital births, 1970-94

Nonmarital births have risen faster in rural areas since 1980



Source: Calculated by ERS based on data from the 1970, 1980, 1990, and 1994 Natality Detail Files. Data for 1970 exclude 10 States that did not report marital status.

Whites and reversed among Blacks since 1980. By 1994, rural Blacks had a higher ratio of nonmarital births (73 percent) than urban Blacks (70 percent).

Unmarried Teenagers Account for More Births in Rural Areas

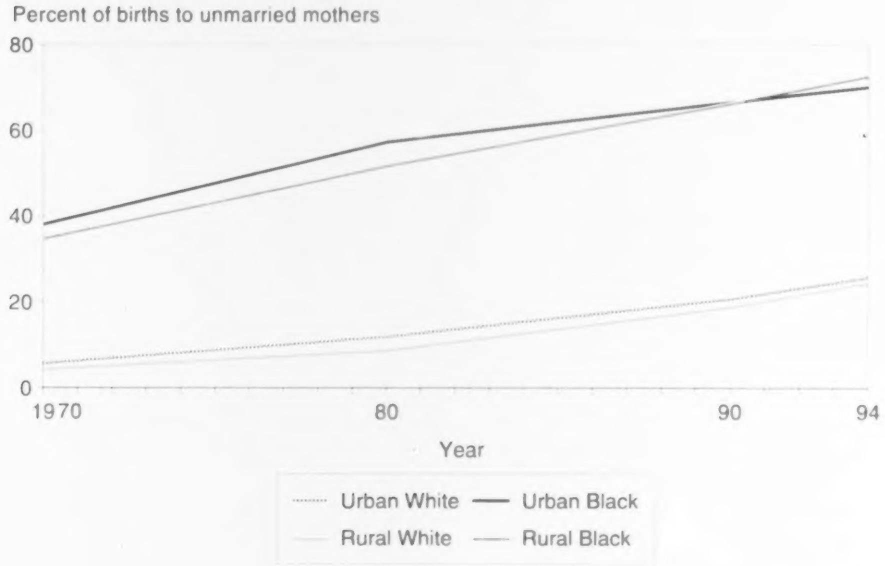
Fewer than one-third of unmarried mothers were under age 20 in 1994, although unmarried motherhood is often perceived as a teenage problem. However, rural unmarried mothers were more likely to be teenagers than their urban counterparts (fig. 3). Unmarried teenagers consequently accounted for a larger and more rapidly growing share of rural than urban births (fig. 4). By 1994, 1 of every 9 infants born in rural areas had an unmarried teenage mother, compared with 1 of every 10 urban infants. Births to unmarried teenagers have become a public problem because few teenage girls have the economic resources or parenting skills needed to raise a child without assistance from older relatives, schools, or welfare agencies.

One of the goals of the new welfare law (formally known as the Personal Responsibility and Work Opportunity Reconciliation Act of 1996) is to reduce the incidence of nonmarital pregnancies. The law requires States to develop plans to reduce nonmarital pregnancies with a special emphasis on teenagers, and authorizes a total of $100 million in bonus payments each year during 1999-2002 for the States achieving the greatest reduction in nonmarital births. Successful programs to prevent teenage pregnancies could result in a greater reduction in nonmarital births in rural than urban areas because teenagers represent a higher proportion of unmarried mothers in rural areas. Still, rural States may face

Figure 2

Nonmarital births by race, 1970-94

Blacks have relatively more births outside marriage than Whites



Source: Calculated by ERS based on data from the 1970, 1980, 1990, and 1994 Natality Detail Files. Data for 1970 exclude 10 States that did not report marital status.

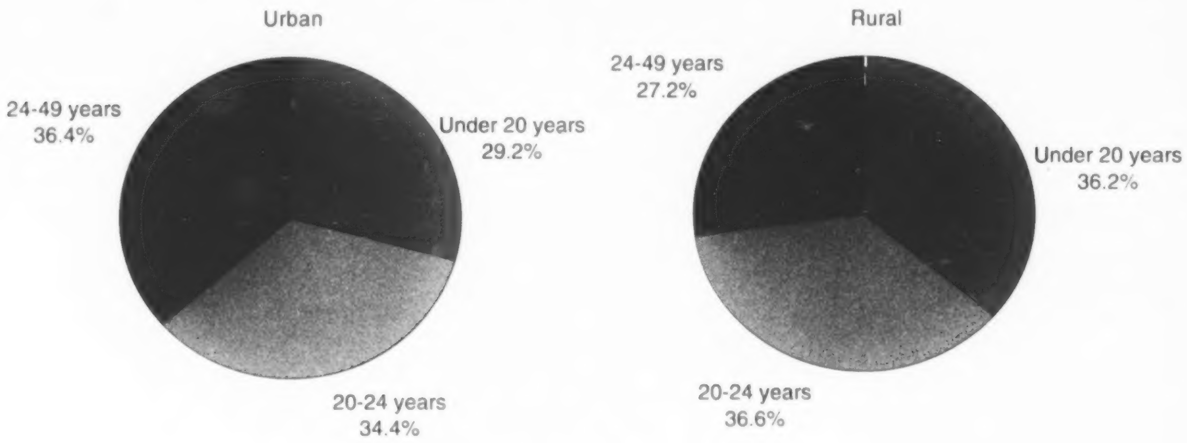
greater challenges in reducing nonmarital births than urban States due to the more rapid rise in nonmarital childbearing in rural areas.

Nonmarital Birth Rate Is Slightly Higher in Rural Areas

The proportion of births to unmarried women depends on three demographic factors: the proportion of women of childbearing age who are married, the birth rate for married women, and the birth rate for unmarried women. All three factors differed between urban and rural areas in 1994 (table 1). Rural women were more likely to be married than urban women, reducing the proportion of women at risk of a nonmarital birth in rural areas. However, the marital birth rate was lower in rural areas, reducing the number of married births despite the higher proportion of married women. In contrast, the nonmarital birth rate was slightly higher in rural areas, increasing the number of nonmarital births even though relatively fewer rural women were unmarried. The net result of these three factors was a lower proportion of nonmarital births in rural than urban areas.

The small difference between the nonmarital birth rate in urban and rural areas suggests that place of residence does not have a major effect on nonmarital childbearing. The lower marital birth rate in rural than urban areas is a surprising finding, and may mark a historic reversal of the traditional pattern of higher rural fertility. Possible causes of this reversal include the recent influx of foreign immigrant populations with high birth rates into urban areas, and the onset of delayed childbearing by older urban women who had previously postponed births while they pursued careers. *[Paul D. Frenzen, 202-501-7925 (after October 24, 202-694-5446), pfrenzen@econ.ag.gov, and Margaret A. Butler, 202-219-0534 (after October 24, 202-694-5417), mbutler@econ.ag.gov]*

Figure 3
Nonmarital births by mother's age, 1994
A higher proportion of unmarried mothers were teenagers in rural areas

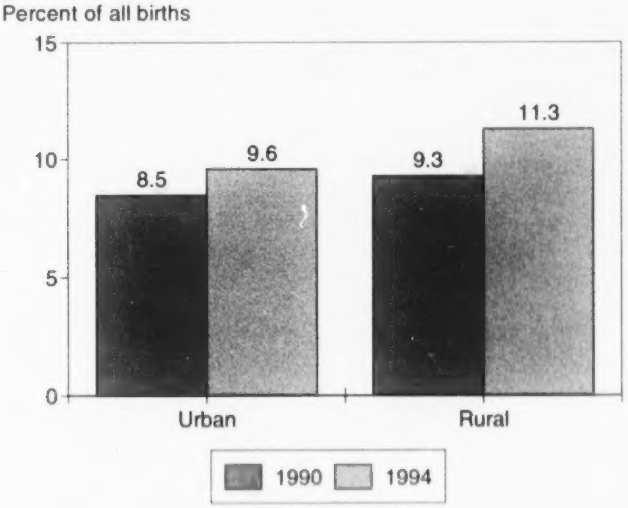


Source: Calculated by ERS based on data from the 1994 Natality Detail File.

Figure 4

Proportion of all births to unmarried teenagers, 1990 and 1994

Unmarried teenagers were responsible for a large and increasing share of all births in rural areas



Source: Calculated by ERS based on data from the 1990 and 1994 Natality Detail Files.

Table 1

Determinants of nonmarital births in 1994

The demographic factors that determine the proportion of nonmarital births differ between urban and rural areas.

Women age 15-44	Urban areas	Rural areas
Proportion married (Percent)	48.5	54.8
Births per 1,000 married women	92.8	80.8
Births per 1,000 unmarried women	42.7	43.8

Source: Calculated by ERS based on data from the 1994 Natality Detail File, 1990-94, estimates of the Population of Counties, and the March 1994 Current Population Survey.

How Rural Areas Were Identified

This article uses the 1983 U.S. Office of Management and Budget (OMB) definition of metropolitan areas to distinguish urban and rural areas, unlike other articles in this issue that employ the 1993 update of the OMB definition. Recent urban-rural differences in nonmarital birth rates could only be examined using the 1983 OMB definition due to the limitations of the data on marital status (see Data Sources appendix). Therefore, trends in the proportion of nonmarital births were also tabulated by the 1983 definition in order to provide a consistent picture of urban and rural patterns.

Rural Housing Conditions Improve but Affordability Continues To Be a Problem

Rural housing quality has improved over time and rural-urban differences in housing adequacy have all but disappeared. Yet 1.6 million rural households live in housing classified as substandard. At the same time, substantial proportions of both rural and urban households are burdened by housing costs that exceed 30 percent of their income.

Many rural areas have grown both economically and in population during the 1990's. New settlement patterns showing increased metro-to-nonmetro migration have raised questions about the adequacy of existing housing and amenities to meet this population and employment growth. In many rural communities, increased demands for water, sewerage, and other economic and social services have strained local resources. Also, the housing cost burden (housing costs as a proportion of income) continues to be a major problem across the United States. Newly released data from the 1995 American Housing Survey indicate that despite improvements and a narrowing of the rural-urban gap in rural housing conditions, issues related to both housing quality and affordability continue to affect a substantial number of rural households.

Rural Housing Increases at a Slower Rate Than Urban

According to data from the 1995 American Housing Survey, nonmetropolitan areas contained a total of 21.6 million occupied, year-round housing units (table 1), comprising about 22 percent of total occupied housing in the United States. Nonmetro occupied housing stock (housing units occupied by owners or renters) has increased over time, but at a slower rate than that of metro areas. Between 1985 and 1993, occupied nonmetro housing increased by over a million units, a gain of 5.2 percent. (The 1995 data are not strictly comparable with earlier years because of a change in the metro-nonmetro definition.) The largest increase occurred in the West, an area with high population and employment growth during this time period. Housing stock in metro areas grew at a faster rate of 7.7 percent over the 8-year period, reflecting a substantially higher metro population growth during the 1980's and slightly higher metro population growth in the early 1990's. Most of this increase in both metro and nonmetro areas was in owner-occupied units.

Housing Stock and Household Characteristics Differ Between Rural and Urban Areas

Nonmetro areas have higher percentages of single-family detached dwellings, mobile homes, and seasonal units such as vacation homes; higher rates of home ownership; and less crowding in terms of persons per room than in metro areas. At the same time, housing units in nonmetro areas are also more likely to lack complete plumbing, a private bath, and a complete kitchen, and to have electrical defects, such as exposed wiring and rooms without electrical outlets, compared with metro units. However, each of these problems is present in less than 4 percent of the units in either metro or nonmetro areas. Owner-occupied nonmetro units have lower median values, lower property taxes, and require lower monthly housing expenditures than metro units. The median rent is lower in nonmetro areas as well.

Population and housing characteristics are inextricably linked and rural-urban differences in household composition and characteristics are important for understanding the supply of and demand for housing in rural and urban areas. Rural households as a group differ from urban households in that they are more likely to be husband-wife families and to be headed by an elderly person (over 65). They are less likely to have female householders or to consist of a young single individual than are urban households. Rural householders are more likely to be White and their educational levels tend to be lower than those of their urban counterparts. Nonmetro household income is lower than that of metro areas, and nonmetro households were more likely to be in poverty or in near-poverty (with incomes between the poverty level and 200 percent of the poverty level) than metro households in 1995.

Rural-Urban Differences in Housing Quality Are Minimal

Nonmetro housing appears to have no greater problems of housing quality than metro housing. Less than 2 percent of either metro or nonmetro units lack complete plumbing facilities—a traditional indicator of housing quality. A second criterion—crowding—also shows little rural-urban difference. A unit is considered crowded if the person-per-room ratio is greater than 1:1. The incidence of overcrowding in nonmetro areas was less than 2 percent, and less than 3 percent in metro areas (fig. 1).

A third indicator of housing quality measures moderate or serious housing inadequacy based on the combined severity of problems with plumbing, heating, upkeep, hallways, and electricity. About 92 percent of nonmetro and and 94 percent of metro units were classified as physically adequate using this measure. Both the number and proportion of households living in physically inadequate housing has declined over time and the rural-urban gap has diminished. Almost 1.8 million housing units in nonmetro areas were considered to be moderately or seriously inadequate in 1995.

Table 1

Household and housing unit characteristics, 1995

Nonmetro areas have higher percentages of single-family detached dwellings and mobile homes, and higher rates of home ownership than metro areas

Characteristics	Nonmetro	Metro
	1,000	
Total occupied housing units:	21,586	76,107
	Percent	
Single unit	74.7	66.0
With 2-9 units	8.7	16.1
With 10 or more units	3.0	13.7
Mobile homes/trailers	13.6	4.2
Owner-occupied	73.5	62.7
Renter-occupied	26.5	37.3
Married couples with children	55.5	50.9
Other male householder	16.4	19.0
Other female householder	28.1	30.1
Below poverty level	17.5	14.4
Near poverty (between poverty and 200 percent of poverty level)	24.1	17.7
Other	58.4	67.9
Householder characteristics:		
Age under 45 years	42.2	49.9
Age 46-64	31.1	30.3
Age 65 and over	26.7	19.8
Less than high school graduation	25.3	17.5
High school diploma or GED	40.4	32.4
Some college	34.3	50.1
White, non-Hispanic	87.7	73.8
Black and other	9.3	17.0
Hispanic	3.0	9.2

Source: Calculated by ERS using data from the American Housing Survey.

This composite indicator is only a loose proxy for substandard housing. For example, over half of the nonmetro units with broken plaster or peeling paint were classified as adequate, as were 92 percent of units reporting basement leaks, 53 percent of those reporting open cracks or holes in walls or floors, and 73 percent reporting inadequate heat due to equipment breakdowns.

Housing Cost Burdens Remain High for Both Rural and Urban Households

The gap between what people can afford to pay and the cost of housing is a major housing problem throughout the United States. Housing cost burdens are generally measured as a percentage of gross household income. During the 1960's, in the early days of the public housing program, housing costs above 20 percent of income were considered burdensome. Since the early 1980's, the Department of Housing and Urban Development has defined moderate cost burdens as those between 30 and 50 percent of income, and severe cost burdens as those above 50 percent. Percent of income paid for housing is only a rough proxy for housing affordability. Clearly, the proportion of one's income that is affordable for housing depends both on one's income level and other basic needs.

Rural households are less likely to have moderate or severe housing cost burdens than urban residents. Housing costs include expenses for mortgages, rents, real estate taxes, property insurance, condominium and homeowners' fees, utilities, fuels, and trash collection. Although incomes in rural areas tend to be lower than in urban areas, housing costs are also lower. In 1995, median income of families and primary individuals in nonmetro areas was $25,942, compared with $26,567 in metro central cities and $35,996 in metro suburbs. But monthly housing costs in nonmetro areas were relatively low, with a median of $377, compared with $545 in central cities and $652 in suburbs of metro areas.

Even so, over 4.8 million nonmetro households, or 24 percent of the total, paid more than 30 percent of their incomes for housing (fig. 2). Nearly 1 in 10 nonmetro households spent over half of their income on housing. For these households, there can be little left over for other living expenses. An even greater proportion (33 percent) of metro households experienced moderate or severe cost burdens. The proportions of metro and nonmetro households with these high housing costs have remained relatively constant since 1985.

Poverty thresholds are probably better measures of ability to pay for housing since they account for differences in household size. About 71 percent of poor nonmetro households had moderate or severe cost burdens. High cost burdens in rural areas were primarily a factor of low income rather than high housing costs. Almost 60 percent of those nonmetro households with high cost burdens paid less than $500 monthly for their housing costs.

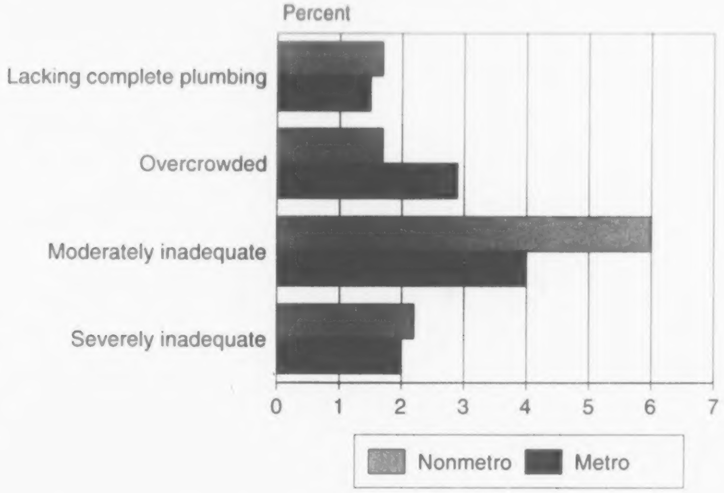
Housing Quality and Affordability Are Issues in Both Areas

While it is true that housing conditions have improved over time and that rural-urban differences in housing adequacy have all but disappeared, almost 1.8 million nonmetro and 4.6 million metro households live in housing classified as substandard. Substantial proportions of both rural and urban households have housing expenses that exceed 30 percent of their income, although this problem is less serious in rural than urban areas. Finally, the national data presented here mask considerable regional diversity in housing conditions and affordability, as well as unique housing problems faced by such population groups as the elderly, single-parent families, young beginning households, and racial/ethnic minority groups. Housing problems of quality and affordability for these population groups and for rural residents of some regions are more serious than the national trends depict. *[Leslie A. Whitener, 202-219-0935 (after October 24, 202-694-5442), whitener@econ.ag.gov]*

Figure 1

Indicators of rural housing quality, 1995

Metro-nonmetro differences in housing quality are minimal

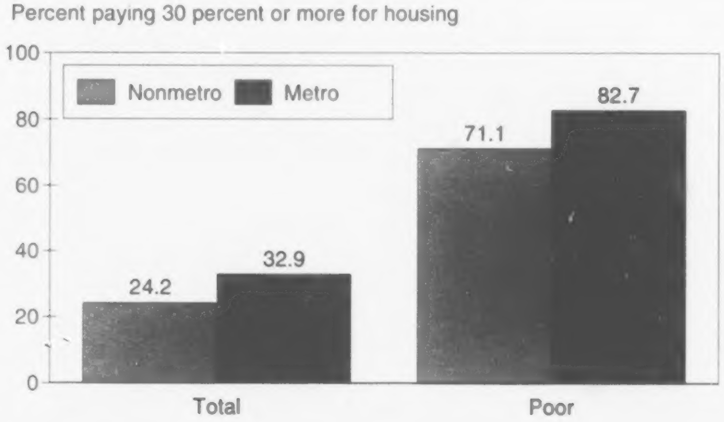


Source: Calculated by ERS using data from the American Housing Survey.

Figure 2

Housing cost burdens by poverty status, 1995

Large proportions of both metro and nonmetro households paid 30 percent or more of their income for housing costs



Note: Excludes households paying no cash rent, or having zero or negative income.
Source: Calculated by ERS using data from the American Housing Survey.

Housing Quality Measures

Lacking complete plumbing facilities: The housing unit does not have all three specified plumbing facilities (hot and cold piped water, flush toilet, and bathtub or shower) inside the housing unit, or the toilet or bathing facilities are also for the use of the occupants of other housing units.

Crowded housing unit: A housing unit is considered crowded if the person-per-room ratio is greater than 1:1.

Severely inadequate housing: A housing unit has severe physical problems if it has any of the following five problems:

Plumbing. Lacking hot or cold piped water or a flush toilet, or lacking both bathtub and shower, all inside the structure for the exclusive use of the unit.

Heating. Having been uncomfortably cold last winter for 24 hours or more because the heating equipment broke down, breaking down at least three times last winter for at least 6 hours each time.

Electric. Having no electricity, or all of the following three electric problems: exposed wiring, a room with no working wall outlet, and three blown fuses or tripped circuit breakers in the last 90 days.

Upkeep. Having any five of the following six maintenance problems: water leaks from the outside, leaks from the inside structure, holes in the floor, holes in the walls or ceilings, more than a square foot of peeling paint or broken plaster, or signs of rats or mice in the last 90 days.

Hallways. Having all of the following four problems in public areas: no working light fixtures, loose or missing steps, loose or missing railings, and no elevator.

Moderately inadequate housing. A unit has moderate physical problems if it has any of the following five problems, but none of the severe problems.

Plumbing. Having the toilets all break down at once, at least three times in the last 3 months, for at least 6 hours each time.

Heating. Having unvented gas, oil, or kerosene heaters as the main source of heat; these give off unsafe fumes.

Upkeep. Having any three of the six upkeep problems mentioned under severe.

Hallways. Having any three of the four hallway problems mentioned under severe.

Kitchen. Lacking a sink, range, or refrigerator, all for the exclusive use of the unit.

Number of Hired Farmworkers Increases, but Their Median Weekly Earnings Show Little Improvement

After decreasing during the first half of the 1990's, the number of hired farmworkers employed has increased since 1994. Although their median weekly earnings have increased since 1994, they have still lost ground compared with real 1990 earnings. Hired farmworkers accounted for less than 1 percent of the U.S. wage and salary work force, but they accounted for almost 2 percent of the Nation's unemployed.

Hired farmworkers, while less than 1 percent of all wage and salary workers, account for about one-third of the production agricultural work force. Operators and their unpaid family members account for the remaining two-thirds. More importantly, hired farmworkers provide the labor at critical production times when operators and family members are unable to supply the necessary labor. Relative to the type of work performed by many wage and salary workers, hired farmwork is often seasonal, is usually performed outdoors, involves lifting and carrying heavy objects, and pays substantially less. Hired farmworkers include persons who reported their primary employment during the week as farm managers (8 percent), supervisors of farmworkers (4 percent), nursery workers (2 percent), and farmworkers engaged in planting, cultivating, and harvesting crops or tending to livestock (86 percent).

Number of Hired Farmworkers in 1996 Largest of the 1990's

After continually decreasing from 1990 to 1994, the annual average number of hired farmworkers (15 and older) employed per week increased in 1996 to 906,000, an increase of about 14 percent over the decade-low 793,000 in 1994 (fig. 1). Accompanying this change was a 13-percent increase in the hired farmwork force (persons, employed or unemployed, who reported their primary employment is or was hired farmwork), from 903,000 in 1994 to 1.02 million in 1996. Consequently, unemployment in the hired farmwork force remained about 12 percent during 1994-96 (unemployment in the U.S. work force averaged about 5.5 percent during the same time period).

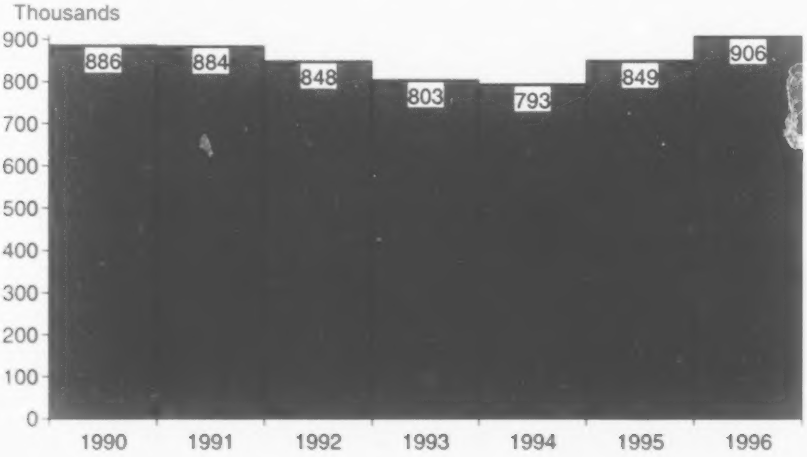
Demographic Characteristics of Hired Farmworkers Vary Among Groups of Workers

Hired farmworkers in 1996 were more likely than all wage and salary workers to be male, younger, never married, and less educated (app. tables 11 and 12). They were also more

Figure 1

Annual average number of hired farmworkers, 15 years of age and older, employed per week, 1990-96

The number of hired farmworkers employed has increased since 1994



Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

likely than all wage and salary workers to be Hispanic (36 percent compared with about 10 percent) and to be foreign nationals who are citizens of other countries (28 percent compared with 7 percent). These workers were employed in crop production (50 percent), livestock production (40 percent), and other agricultural establishments (10 percent) such as agricultural services, forestry, fishing, hunting, trapping, landscape and horticultural services, and other agricultural-related establishments. About 98 percent of the noncitizen hired farmworkers were Hispanic (54 percent for all wage and salary workers). A greater percentage of the noncitizen hired farmworkers (about 79 percent) had 8 years or less education than all hired farmworkers (33 percent) (figs. 2 and 3). The education level of the noncitizen hired farmworkers continued to pull down the level of education of the entire hired farmwork force. Most noncitizen hired farmworkers (70 percent) were employed in crop production. In addition to the 906,000 workers who reported hired farmwork as their primary occupation, 72,000 persons reported hired farmwork as their secondary occupation.

About 704,000 workers (78 percent all employed hired farmworkers) were primarily employed full-time (worked 35 hours or more per week), and 202,000 were primarily employed part-time. Part-time hired farmworkers were more likely than full-time ones to be female, White, younger (median age of 20 years compared with 37 years), never married, and born in the United States. About 53 percent of the part-time workers were employed in livestock production, and 53 percent of full-time workers were employed in crop production.

Over 50 percent of hired farmworkers were employed in crop production, 41 percent in livestock production, and 9 percent in other agricultural establishments. Workers in other agricultural establishments were more likely to be female. Hispanic workers accounted for more than one-half of the crop and other agricultural employees. Livestock workers were younger and better educated than other farmworkers.

Two Percent of Unemployed U.S. Workers Were Hired Farmworkers

Unemployed in the farmwork force accounted for almost 2 percent of all unemployed in 1996, more than double their percentage of the wage and salary work force. About 23 percent of the unemployed farmwork force were female, 60 percent were Hispanic, and 15 percent were Black and other; 29 percent were 25-34 years of age (median age was 31 years); 53 percent had less than 9 years of education (median was 7th or 8th grade); and 55 percent were noncitizens. About 71 percent of the unemployed farmwork force had been employed in crop production, 22 percent in livestock production, and 7 percent in other agricultural establishments. The high unemployment months in 1996 were February, March, and November.

Hired Farmworker Earnings Remained Lower Than Those for Other Workers

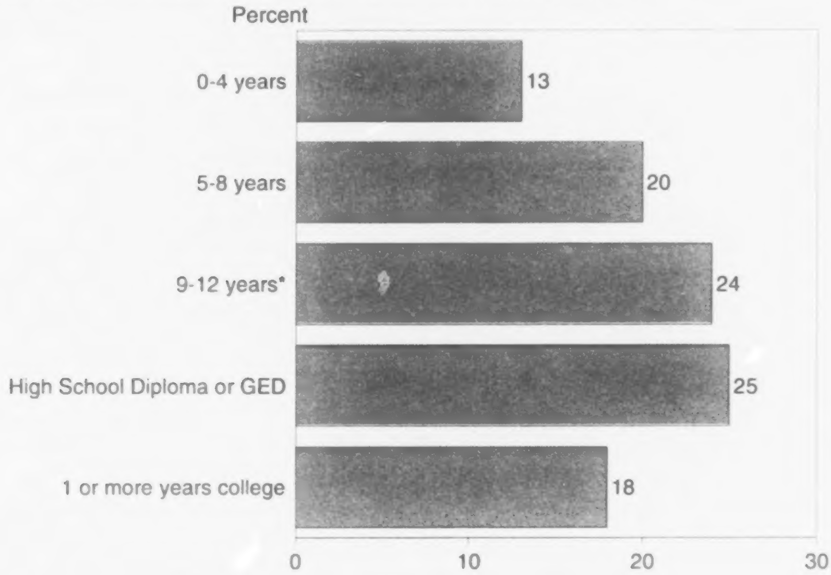
Hired farmworkers continued to earn significantly less than most other workers. Full-time hired farmworkers received median weekly earnings of $280, or 58 percent of the $481 median weekly earnings of all wage and salary workers (fig. 4). Median weekly earnings for all full-time wage and salary workers ranged from $731 for full-time professional specialties to $200 for private household workers. Only private household workers received lower median weekly earnings than hired farmworkers. Service workers, except private household and protective, had the same median weekly earnings as hired farmworkers. Although weekly earnings for full-time farmworkers declined 2.8 percent between 1990 and 1996 after adjusting for inflation, they have increased 5.6 percent since 1994. Real median earnings for all U.S. full-time wage and salary workers decreased by 0.8 percent from 1990 to 1996 and 1.6 percent from 1994 to 1996.

Hired farmwork is short-term and unsteady due to the seasonal nature of agriculture. This seasonality of employment and low earnings make hired farmwork one of the lowest paying occupational groups. Many hired farmworkers seek nonfarm jobs to supplement their incomes. However, their low education levels and limited labor market skills often make competition for higher wage, nonfarm jobs more difficult.

Figure 2

Distribution of hired farmworkers by schooling completed, 1996

More than half of farmworkers have not graduated from high school



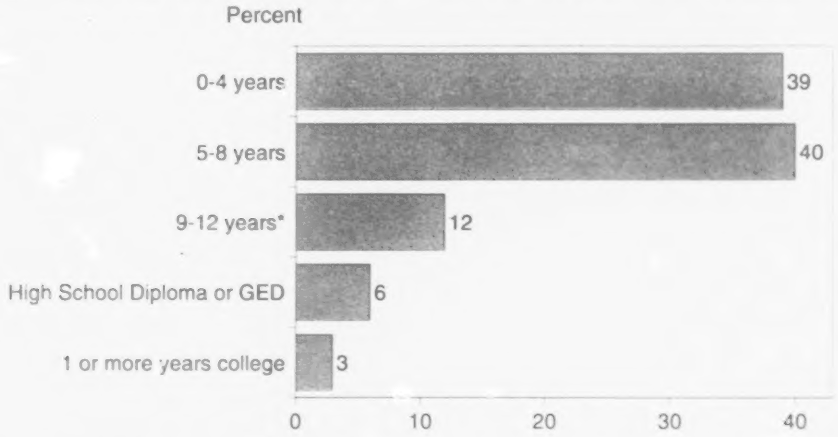
*But did not graduate

Source: Calculated by ERS using data from the 1996 Current Population Survey earnings microdata file.

Figure 3

Distribution of noncitizen hired farmworkers by schooling completed, 1996

Almost three-fourths of noncitizen hired farmworkers have only an elementary education



*But did not graduate

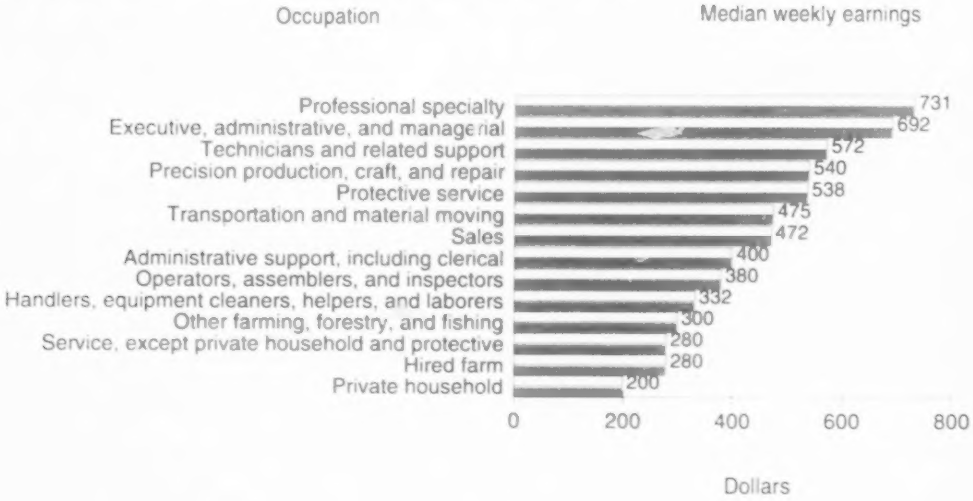
Source: Calculated by ERS using data from the 1996 Current Population Survey earnings microdata file.

During 1990-94, the demand for hired farmworkers apparently declined. Between 1994 and 1996, demand started to rebound, as shown by the increased number of hired farmworkers employed. This change closely parallels the change in real weekly earnings of hired farmworkers. It is not possible to determine from the available data whether the increasing number of workers employed represents an increase in the total number of employment opportunities, a decrease in the number of undocumented workers, or a combination of both. However, the increasing earnings indicates that there is competition for workers as more jobs, both farm and nonfarm, become available and national unemployment declines. *[Jack L. Runyan, 202-219-0937 (after October 24, 202-694-5438), jrunyan@econ.ag.gov]*

Figure 4

Median weekly earnings of full-time wage and salary workers by occupation, 1996

Hired farmworkers rank near the bottom of major occupational groups



Source: Calculated by ERS using data from the 1996 Current Population Survey earnings microdata file.

Farm Operator Household Income and Wealth Compare Favorably With All U.S. Households

On average, farm operator household income was about the same as the average for all U.S. households in 1995. The average farm operator household received its income from various sources, and only 11 percent was from the farm. Households with commercial farms, however, received about half of their income from farming. On average, the net worth of farm operator households fell between those of all U.S. households and the households of the self-employed. Wealth of farm households consisted mostly of their farms, regardless of the size of the farm they operated.

Farm households today depend more on off-farm income than farm income for their livelihood. Most establishments classified as farms are too small to support a household because the official U.S. farm definition requires only $1,000 of sales to qualify as a farm. For many farm households, off-farm jobs and the health of the local nonfarm economy may be more important than changes in farm income. For households with larger farms, income from farming remains critical. Nevertheless, the farm makes up most of the wealth of farm households, regardless of farm size. The value of farmland and other farm assets may be a larger issue than farm income for households operating small farms.

Monitoring the level and sources of farm households' income and wealth helps in discussions of ways to improve or maintain the economic well-being of farm people. This is particularly true after major farm legislation, such as that passed in 1996, which may affect farm income and asset values.

The information presented here is unique because it covers both income and wealth and because it covers all farm operator households and their farms across the United States. This article uses data from the U.S. Department of Agriculture's Farm Costs and Returns Survey (FCRS). For more information about the survey, see Data Sources. Averages, rather than medians, are used to measure income and wealth from the FCRS. For more information, see "mean income versus median income" in the appendix.

In addition, this article uses mean household income for all U.S. households ($44,900) to compare with operator household income, rather than mean household income in nonmetro areas ($27,800). Farm households are not entirely nonmetro; about one-third of farm households lived in metro areas in 1995.

Sources and Levels of Income Vary With Farm Size

The average income of farm operator households compares favorably with that of other U.S. households. According to the most recent FCRS estimates, farm operator households averaged $44,400 in income from all sources in 1995. Average farm operator household income was 99 percent of the average for all U.S. households ($44,900).

In 1995, 89 percent of operator household income came from off-farm sources, mostly from wages, salaries, and nonfarm businesses (fig. 1). Sources of income, however, varied with the characteristics of the operator and the farm (app. table 13). For example, the amount of farm income increased with increasing farm size, as measured by sales of agricultural products (fig. 2).

About three-fourths of U.S. farmers operated noncommercial farms (sales less than $50,000). Most of these operators reported a major occupation other than farming in 1995 (49 percent) or considered themselves retired (21 percent). On average, households of these operators lost money farming in 1995 and depended on off-farm sources for virtually all their income, regardless of where they lived (fig. 3).

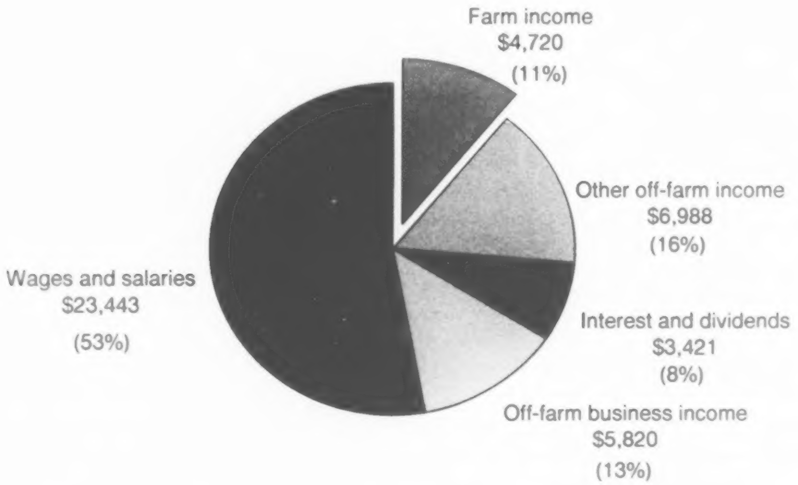
In contrast, households with commercial farms (sales of $50,000 or more) depended on off-farm income for only half of their income. About 88 percent of the operators of these larger farms reported farming as their major occupation. Only 26 percent of the operators of commercial farms actually worked off-farm, according to the 1994 FCRS, the most current FCRS to collect information about off-farm job holding. But, the spouse worked off-farm in 44 percent of commercial farm households. As a result, 56 percent of households operating commercial farms had an operator, a spouse, or both working off-farm.

Combining farm and off-farm income was an effective strategy for households with commercial farms. On average, these households had substantially higher total income

Figure 1

Sources of income for average farm operator household, 1995

Income from the farm averages 11 percent of total farm household income

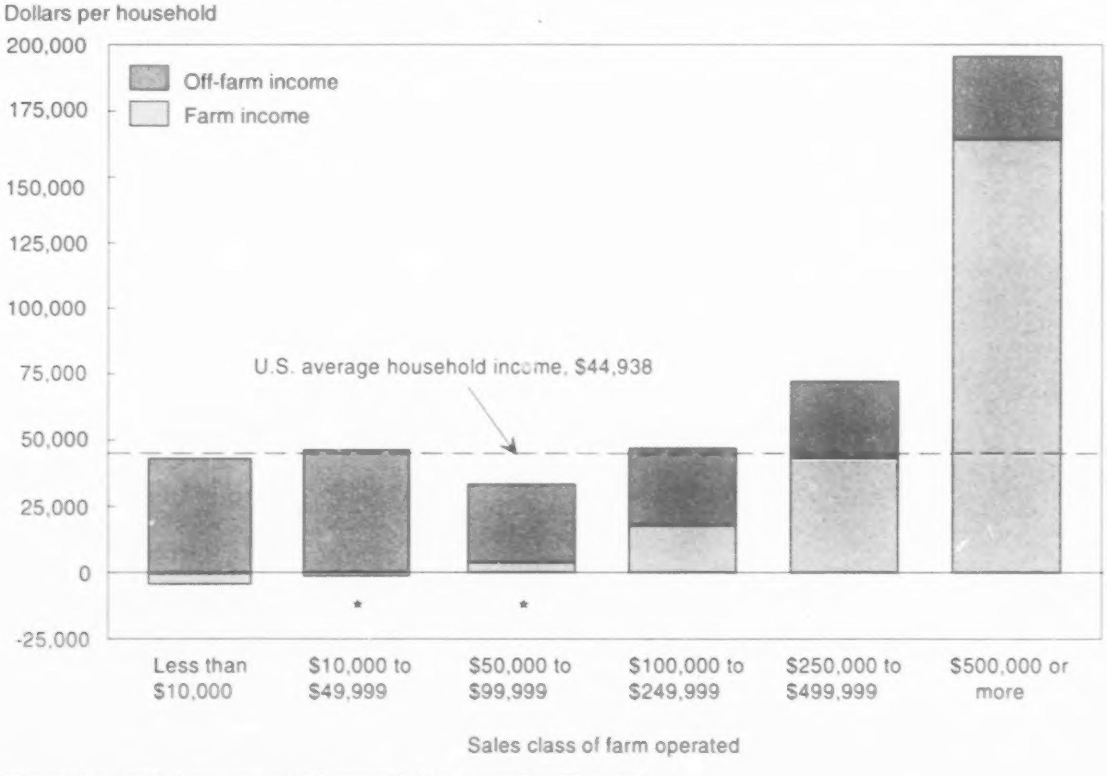


Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey.

Figure 2

Average farm operator household income, by source and sales class, 1995

On average, the households of small farms depend heavily on off-farm income, while the households of larger farms depend mostly on farm income



*The relative standard error exceeds 25 percent but is no more than 50 percent.
Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey for farm operator household data. U.S. Bureau of the Census, March 1996 Current Population Survey for all U.S. households.

($57,700) in 1995 than households running noncommercial farms ($39,800) or all U.S. households ($44,900). Regardless of residence, households operating commercial farms had higher total household income than their noncommercial counterparts (fig. 3).

Off-Farm Income and Employment over the Decades

Although farm operator households' dependence on off-farm income is commonly viewed as a recent development, a lack of consistent historical data makes it difficult to say exactly when farm households began to rely heavily on off-farm income. To some extent, part-time farming has always existed.

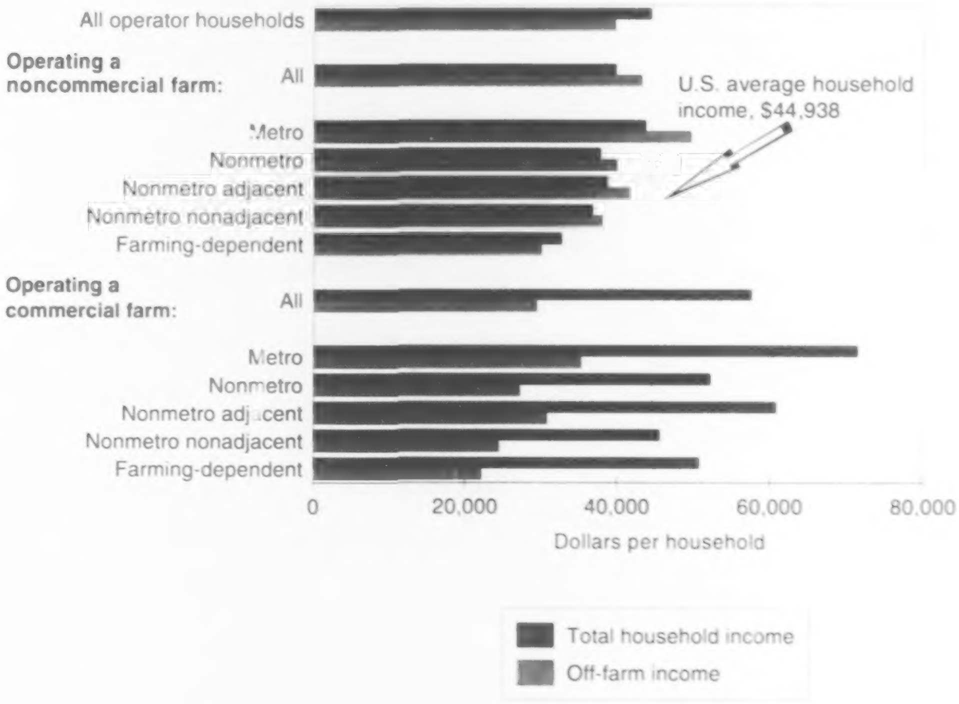
The data that do exist indicate that off-farm work has been important to farm households for generations. FCRS household data are available only from 1988 forward, but an earlier USDA household data series extended back to 1960. Although not entirely comparable with the FCRS, this earlier household series showed that operator households relied on off-farm income for at least 50 percent of their income as far back as the early 1960's.

Another discontinued USDA series—mean per capita disposable personal income of farm residents—estimated income from farm and off-farm sources between 1934 and 1983. This series also showed heavy reliance on off-farm income (40 to 70 percent) in the

Figure 3

Total and off-farm income for operator households, by sales class of farm operated and residence, 1995

Regardless of location, households operating commercial farms receive total household income near or above the average for all U.S. households and more than their noncommercial counterparts



Note: Off-farm income can be greater than total household income if farm income is negative.

Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey for farm operator household data. U.S. Bureau of the Census, March 1996 Current Population Survey for all U.S. households.

1960's, 1970's, and early 1980's. Even in the 1930's, 30 to 41 percent of farm residents' disposable personal income came from off-farm sources. Farming provided the largest share of disposable personal income, about three-quarters, during most of the 1940's. At that time, farming experienced a boom from World War II and its aftermath.

A related data series on days worked off-farm from the agricultural census extends from the most recent agricultural census back to 1930. These data also suggest that income from off-farm work by the operator has been important as long ago as the 1930's (fig. 4). This series shows that one-fourth to one-third of farm operators worked off-farm in the 1930's and early 1940's, generally for fewer than 100 days. By 1954, about 45 percent of operators worked off-farm, only about 7 percentage points less than in 1992. Although the percentage working off-farm has not increased dramatically since 1954, the percentages working at least 200 days off-farm increased from 22 percent in 1950 to 35 percent in 1992, with most of the increase coming between 1950 and 1969. Unlike the income data, the census data consider only the activities of the operator and exclude off-farm work by other household members.

Net Worth Is Important, Too

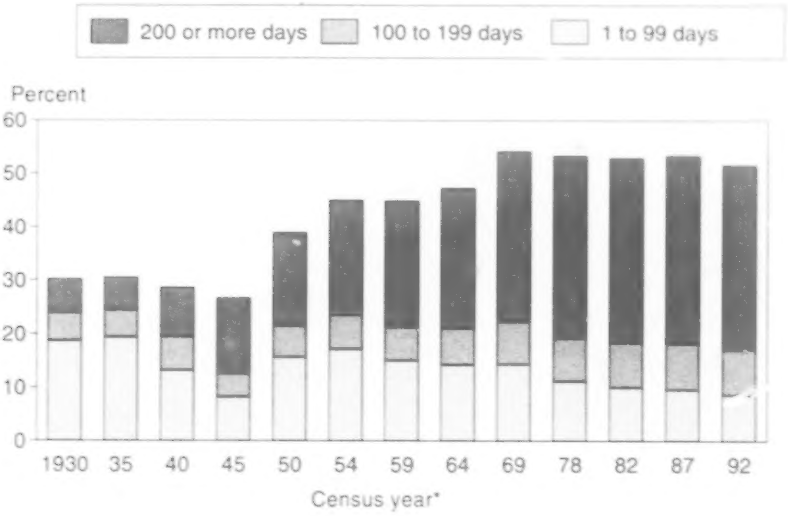
Although income contributes to a household's economic well-being, net worth—the difference between assets and liabilities—is also important. As one would expect, net worth was substantially more for households with commercial farms ($576,400) than for their counterparts with noncommercial farms ($293,800) (fig. 5). The farm, however, accounted for most of the net worth of both commercial and noncommercial farm households.

Regardless of residence, operator households with a noncommercial farm had an average net worth near the average for all U.S. households, but a smaller net worth than U.S. households whose householders reported self-employment as their major occupation. In contrast, households with commercial farms in each residence category had a net worth closer to the average for all U.S. self-employed households.

Figure 4

Farm operators reporting off-farm work, 1930-92

One-third of farm operators have worked off-farm essentially full-time since the 1970's



*Comparable data for 1974 are unavailable.

Source: U.S. Bureau of the Census, Census of Agriculture, various years.

Households with commercial farms in metro counties had the highest average net worth, $661,300. About 44,100 commercial farm households in metro counties had net worth more than this amount. Twenty-five percent of these households lived in the Corn Belt, and another 22 percent lived in the Pacific region. (For a list of States in the Corn Belt and Pacific region, see "Major Farming Regions" in the Definitions.)

Farming uses land more extensively than most businesses. As a result, real estate accounted for most (68 percent) of the assets of the farms held by operator households. Real estate made up a larger share of the assets of noncommercial farms (78 percent) than commercial farms (58 percent), reflecting commercial farms' greater propensity to rent land and hold other assets such as equipment, machinery, and inventories.

Economic and Noneconomic Benefits From Farming

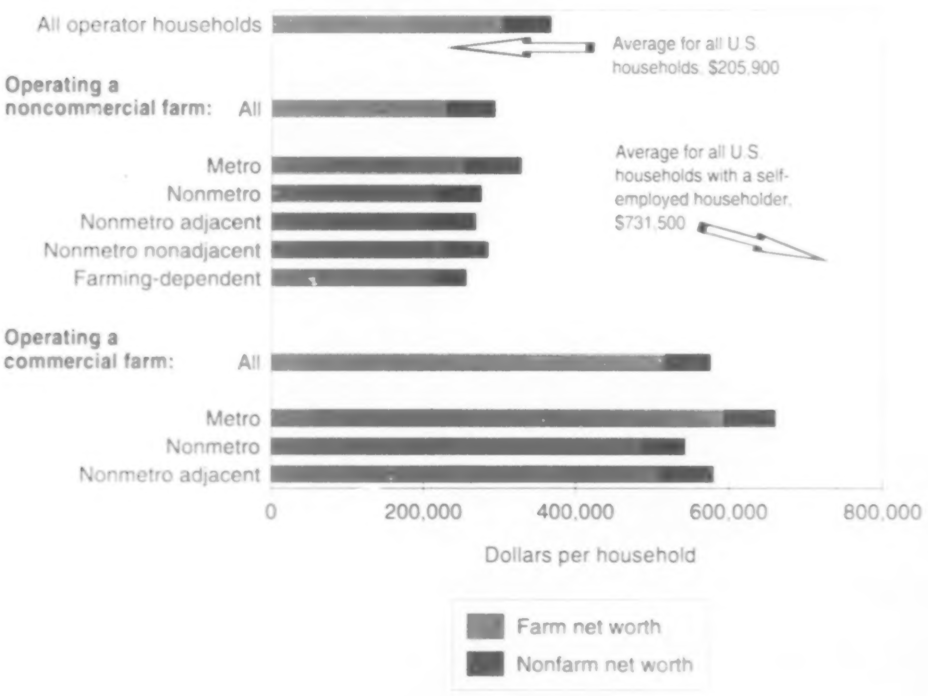
Farming provides benefits to farm households beyond income. Indeed, for many households operating noncommercial farms, income from farming is actually negative. Yet, operators of noncommercial farms continue to farm. Households with noncommercial farms may focus on an economic benefit from farming other than cash income: wealth accumulation.

Responses from the 1995 FCRS, however, indicate that living a farm lifestyle may be more important to noncommercial farm households than either wealth accumulation or farm income. About 57 percent of operators of noncommercial farms rated a rural

Figure 5

Average farm operator household net worth, by sales class and residence, 1995

Farms account for most operator households' net worth, regardless of farm size or location



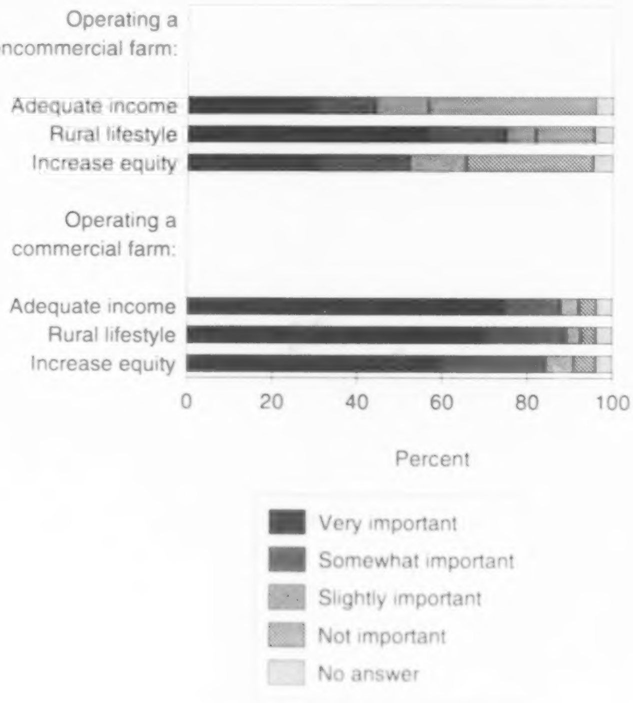
Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey for farm operator household data. Federal Reserve System and U.S. Department of the Treasury, 1995 Survey of Consumer Finances for all U.S. households.

lifestyle as very important in the FCRS (fig. 6). In contrast, only 29 percent said it was that important for the farm to provide adequate income without off-farm work. A similar small share of noncommercial operators (31 percent) rated increasing the equity and assets of the farm as very important. *[Robert A. Hoppe, 202-501-8308, rhoppe@econ.ag.gov, and Penni Korb, 202-219-0592 (after November 7, 202-694-5575, pkorb@econ.ag.gov]*

Figure 6

Importance of selected goals to the operator, 1995

For operators of noncommercial farms, lifestyle is more important than adequate farm income without having to work off-farm



Source: USDA, Economic Research Service, 1995 Farm Costs and Returns Survey, version 1.

Data for Comparisons Between Farm Operator Households and All U.S. Households

The Farm Costs and Returns Survey (FCRS) collects data about U.S. farms, their operators, and their operator households. It collects no data about nonfarm households. Thus, any comparisons between farm operator households and all U.S. households must rely on other data sources that provide information about U.S. households in general.

This article uses the Current Population Survey (CPS), conducted by the Census Bureau, for estimates of income for all U.S. households. The CPS is the source of the official U.S. estimates of income levels and poverty counts. Farm operator household income from the FCRS is defined to be consistent with the definition of household income used in the CPS.

Statistics on net worth of all U.S. households are from the Survey of Consumer Finances (SCF). The SCF is sponsored by the Federal Reserve in cooperation with the Treasury Department. The Survey of Income and Program Participation (SIPP), conducted by the Census Bureau, also provides estimates of household net worth. The SCF, however, is used in this article rather than the SIPP because the SCF was designed specifically to collect information about household wealth. According to the Census Bureau:

> . . . we believe that SIPP provides biased estimates of the aggregate of asset holdings and of mean amounts. The SIPP sample frame contains few observations for high income households, while the SCF makes a special attempt to survey respondents who are likely to have high income or be wealthy. . . . The 1993 measured mean net worth estimated by the SIPP was $99,772, while the 1992 measured mean net worth estimated from the SCF was $226,900 (in 1993 dollars).

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Data Sources

Macroeconomic conditions: The economic indicators used to monitor macroeconomic changes in the U.S. economy are derived from Federal sources. Measures of inflation, including the consumer and producer prices indexes, productivity, employment cost, and employment and unemployment data are developed by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Energy prices are from the Energy Information Administration, U.S. Department of Energy. National income and product account information on capital investment, gross domestic product, and net exports is produced by the Bureau of Economic Analysis (BEA), U.S. Department of Commerce. Information relating to monetary policy including changes in interest rates and foreign exchange rates, and data on industrial production are furnished by the Federal Reserve Board.

Employment data: Data on metro and nonmetro employment and unemployment reported in this issue come from two sources. The monthly Current Population Survey (CPS), conducted by the Bureau of the Census for the Bureau of Labor Statistics, U.S. Department of Labor, provides detailed information on the labor force, employment, unemployment, and demographic characteristics of the metro and nonmetro population. The CPS derives estimates based on interviews of a national sample of about 47,000 households that are representative of the U.S. civilian noninstitutional population 16 years of age and over. Labor force information is based on respondents' activity during 1 week each month. Among the data products of the CPS are the monthly files, the earnings microdata files, and the March Annual Demographic Supplement (known as the March CPS). See appendix on CPS redesign for more information on the CPS.

BLS county-level employment data, the Local Area Unemployment Statistics (LAUS), are taken from unemployment insurance claims and State surveys of establishment payrolls which are then benchmarked to State totals from the CPS. The BLS data series provides monthly estimates of labor force, employment, and unemployment for individual counties.

Each of these data sets has its advantages and disadvantages. The CPS furnishes detailed employment, unemployment, and demographic data for metro and nonmetro portions of the Nation. The LAUS provides less detailed employment data than the CPS, but offers very current employment and unemployment information at the county level. While these data sources are likely to provide different estimates of employment conditions at any point in time, they generally indicate similar trends.

Earnings data: The data for average and median weekly earnings, and usual weekly hours worked are drawn from the outgoing rotation of respondents in the monthly CPS, about one-quarter of the total sample. These respondents are asked about the usual earnings on their sole or primary job. The CPS earnings microdata file, referred to as the earnings file, consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during the year. The 1996 data file contained information on almost 430,000 persons. Data are available for all wage and salary workers in both the public and private sectors.

Income and poverty data: The household income, personal income, and poverty data reported in this issue were calculated from the March Annual Demographic Supplement, known as the March CPS. Every year, the March CPS includes supplemental questions on sources and amounts of money received during the previous calendar year. Consequently, income information in the March CPS refers to the previous year. Estimates from the March CPS are published by the Bureau of the Census in the Consumer Income P-60 series. Information on family size and income is used to estimate the number of families and individuals in poverty based on official guidelines issued by the Office of Management and Budget. Demographic data are available to examine the distribution of income and the characteristics of the poverty populations in metro and nonmetro areas.

Migration data: Migration data reported in the Earnings and Income section are from the Internal Revenue Service. The Internal Revenue Service compiles annual, county-level data by matching current year tax returns with those from the previous year and comparing addresses. If a county or residence is different in the previous year, members of that

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family are considered migrants. If the county is the same, they are considered nonmigrants. The number of exemptions claimed on the return serves as a proxy for the number of migrants in that family. Most people file their returns during early to mid-April, so the data here refer to flows from April of 1 year to April of the next.

Population and immigration data: Estimates of population change, net migration, and natural increase reported in the article on population growth are from the Bureau of the Census county population estimates issued annually. Population estimates are based on various data sources. Births and deaths are based on vital statistics records. Migration estimates are derived as a residual by subtracting natural population increase from actual increases. Estimates include net gain from other counties as well as the institutional population. Estimates of the elderly population and the immigrant population are from the March CPS.

Health status data: Some of the data for the article on the elderly are from the National Health Interview Survey (NHIS), a continuing nationwide sample survey in which data are collected through personal household interviews. Information is obtained on personal and demographic characteristics, illnesses, injuries, impairments, chronic conditions, utilization of health resources, and other health topics. The household questionnaire is reviewed each year, with special health topics being added or deleted. For most health topics, data are collected over an entire calendar year.

Birth data: Information about the distribution of births by mother's age, race, marital status, and place of residence was obtained from the 1970, 1980, 1990, and 1994 Natality Detail Files prepared by the U.S. National Center for Health Statistics. Each file contains most of the information reported on official birth certificates, including mother's county of residence. Additional information about the female population needed to calculate marital and nonmarital birth rates was obtained from the 1990-94 Estimates of the Population of Counties (EPC) file prepared by the Bureau of the Census, and the March 1994 CPS. The EPC file provided information about the total number of women aged 15-44 in each county in July 1994. The March 1994 CPS provided estimates of the proportion of currently married females aged 15-44 in metropolitan and nonmetropolitan areas. The March 1994 CPS classification of metropolitan and nonmetropolitan areas was based on the 1983 Office of Management and Budget (OMB) metropolitan definition. Consequently, all other information about births and females aged 15-44 was tabulated by the 1983 OMB definition for consistency.

Housing data: Housing data are from the American Housing Survey conducted by the Bureau of the Census for the U.S. Department of Housing and Urban Development. The American Housing Survey is a longitudinal survey designed to provide detailed information on housing structure, use, and plumbing characteristics, equipment and fuel use, housing and neighborhood quality, financial characteristics, and household attributes of current occupants. The national sample is based on about 55,000 units selected for interview in 1995. Data are weighted to reflect the U.S. population. Data were collected annually from 1973 to 1981 as the Annual Housing Survey and every other year since 1981 as the American Housing Survey.

Farm labor data: Information on the characteristics and earnings of hired farmworkers are from the CPS earnings microdata file. The data for average and median weekly earnings, and usual weekly hours worked are drawn from the outgoing rotation of respondents in the monthly CPS, about one-quarter of the total sample. These respondents are asked about the usual earnings on their sole or primary job. The CPS earnings microdata file consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during the year. The 1996 data file contained information on almost 430,000 persons.

Farm operator household income and net worth data: Farm operator household income and net worth data are from the Farm Costs and Returns Survey (FCRS). The FCRS is a probability-based survey in which each respondent represents a number of farms of similar size and type. Thus, sample data can be expanded using appropriate

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weights to represent all farms in the contiguous United States. The FCRS is conducted annually by the Economic Research Service and the National Agricultural Statistics Service in all States except Alaska and Hawaii. For the 1995 calendar year, usable data were collected from nearly 8,800 farms and ranches.

Estimates based on an expanded sample differ from what would have occurred if a complete enumeration had been taken. However, the relative standard error (RSE), a measure of sampling variability, is available from survey results. The RSE is the standard error of the estimate expressed as a percentage of the estimate. According to the guidelines for use of the FCRS, any estimate with an RSE greater than 25 percent must be identified.

The standard error of the estimate can also be used to evaluate the statistical differences between groups. The article on Farm Household Income and Wealth emphasizes differences between groups only when estimates were significantly different at the 95-percent level.

Definitions

The data reported in this issue of *Rural Conditions and Trends* are for nonmetropolitan (nonmetro) and metropolitan (metro) areas, but we use the terms "rural" and "urban" interchangeably with "nonmetro" and "metro," the original and more accurate terms used in the data sources.

Adjusted unemployment rate: The total unemployed, plus all marginally attached workers (including discouraged workers), plus total employed part-time for economic reasons workers, as a percent of the civilian labor force plus all marginally attached workers. The adjusted unemployment rate is a more comprehensive way to measure labor market distress than the unemployment rate. This measure corresponds with the Bureau of Labor Statistics's U-6, from the 1994 revised alternative measures of labor underutilization.

Civilian labor force: Noninstitutional civilians age 16 or older who are either employed or unemployed. Individuals who are neither employed nor unemployed are out of the labor force.

Family: Family is defined as two or more people residing together who are related by birth, marriage, or adoption.

Farm: Any place from which $1,000 or more worth of agricultural products is sold or normally would be sold in a year. Noncommercial farms have sales less than $50,000. Commercial farms have sales of $50,000 or more.

Farm operator: The person who runs the farm, making the day-to-day decisions. Information is collected for only one operator per farm. For farms with more than one operator, data are collected only for the primary operator.

Farm operator households: The households of primary operators of farms organized as individual operations, partnerships, and family corporations. These farms are closely held (legally controlled) by their operator and the operator's household. Farm operator households exclude households associated with farms organized as nonfamily corporations or cooperatives, as well as households where the operator is a hired manager. Household members include all persons dependent on the household for financial support, whether they live in the household or not. Students away at school, for example, are counted as household members if they are dependents.

Farm operator household income: The total income of farm operator households includes income from both farm and off-farm sources. Farm income to the household includes net cash farm income less depreciation, adjusted for the share received by the primary operator household in the case of multiple-household farms. Farm income to the operator household also includes any net income received by the household from other farm businesses, plus any wages or salaries paid to the operator and household members by the farm business. Off-farm income consists of the income that all farm household members received from other sources, including wages and salaries, the net income of any nonfarm businesses, interest and dividends, and all other cash off-farm income.

Farm operator household income is defined to be consistent with the definition of household income used by the Bureau of the Census in the Current Population Survey.

Farm operator household net worth: The difference between the operator household's assets and liabilities. It is calculated as the sum of the operator household's farm net worth and nonfarm net worth. If the net worth of the farm is shared with other households (such as the households of shareholders in a family corporation), only the operator household's share is included.

Gross domestic product (GDP): The value of final output produced by people, government, and firms in the United States, whether they are U.S. or foreign citizens, or U.S.- or foreign-owned firms. Output of U.S. citizens or firms located outside the United States is not included. This statistic is reported quarterly but is revised in each of the 2 months following the initial release.

Hired farmworkers: Persons aged 15 and older who do farm work for cash wages or salary, including persons who manage farms for employers on a paid basis, supervisors of farmworkers, and general farm and nursery workers.

Household: Households consist of all persons living in a housing unit. A house, an apartment, or a single room is considered a housing unit if it is occupied as separate living quarters. To be classified as separate living quarters, the occupants of the housing unit must not live and eat with any other people in the structure.

Household income: The sum of the amounts of money received from wages and salaries; nonfarm self-employment income; farm self-employment income; Social Security or railroad retirement; Supplement Security Income; cash public assistance or welfare payments; dividends, interest, or net rental income; veterans payments; unemployment or workers' compensation; private or government employee pensions; alimony or child support; and other periodic payments for all household members.

Income: IRS income data in the migration article in the Earnings and Income section, used to measure the effect of migration on county-level per capita income, includes wages, salaries, taxable interest, pensions and annuities, unemployment compensation, and other income reported to the IRS. It does not include in-kind payments.

Inflation rate: The percentage change in a measure of the average price level. The two measures of the average price level used in this issue are the Consumer Price Index for All Urban Consumers (CPI-U) and the implicit Personal Consumption Expenditures Deflator.

Labor force participation rate: The proportion of the population that is in the labor force.

Major Farming Regions:

Northeast: Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Lake States: Michigan, Minnesota, Wisconsin.

Corn Belt: Illinois, Indiana, Iowa, Missouri, Ohio.

Northern Plains: Kansas, Nebraska, North Dakota, South Dakota.

Appalachian: Kentucky, North Carolina, Tennessee, Virginia, West Virginia.

Southeast: Alabama, Florida, Georgia, South Carolina.

Delta: Arkansas, Louisiana, Mississippi.

Southern Plains: Oklahoma, Texas.

Mountain: Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.

Pacific: California, Oregon, Washington.

Mean income versus median income: The Earnings and Income articles use *median* income as a summary measure of income in rural areas. The Farm Household Income and Wealth article uses *means* to examine operator household income and net worth. Both the mean and the median are measures of central tendency.

The Earnings and Income article on household income in this issue of *RCaT* uses median household income to discuss the level of income in rural areas. The median household income is the income of the household at the center of the income ranking (i.e., at the 50th percentile). Thus, the median represents the income of the average household. Likewise, median personal income is the income of the person right in the middle of the ranking of all personal incomes by size. The median has the advantage of not being influenced by the very high incomes of a small minority of households or persons.

The Farm Household Income and Wealth article uses the arithmetic mean (more simply called the mean) rather than the median to examine farm operator household income and net worth. In the article, means are referred to as averages, which is common in nontechnical writing. Mean household income is simply the sum of the income received by households divided by the number of households. The mean is used in order to analyze the composition of income and net worth as well as their levels. For operator households, mean off-farm income (or net worth) plus mean farm income (or net worth) equals mean total household income (or net worth). Thus, one can calculate the share of mean household income (or net worth) from off-farm sources. In contrast, medians are not additive.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 census. Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Natural amenities index: Natural amenities are measured using an index created at the Economic Research Service, combining measures of climate, topography, and the presence of bodies of water. The index of climate attractiveness is defined using January temperature, number of days with sun in January, July temperature (expressed as a residual when regressed against January temperature), and July humidity. Topography is defined as the difference between an index of mountainous or rugged terrain and average elevation. The presence of bodies of water is measured using the percentage of land area covered by water.

Nonfarm earnings: The sum of wage and salary income, other labor income, such as privately administered pension and profit-sharing plans, and current production income of nonfarm sole proprietorships, partnerships, and tax-exempt cooperatives.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, rural and nonmetro are used interchangeably to refer to people and places outside of MSA's.

Personal income: The sum of money income to a person from all sources, from which money income is regularly received, reported as having been received in the previous calendar year. The sources of money income are: wages and salary; net income from the operation of a business or farm; dividends, interest, royalties, and net rental income; alimony and child support payments received from outside the household; pensions; and transfer payments. Specifically excluded under this definition are windfalls such as a lump sum payment of an inheritance even though in money; capital gains or losses; income in kind; and all within household gifts or transfers whether in cash or kind.

Poverty: A person is in poverty if his or her family's money income is below the official poverty threshold appropriate for that size and type of family. Different thresholds exist for elderly and nonelderly unrelated individuals, for two-person families with and without elderly heads, and for different family sizes by number of children. For example, the poverty threshold for a family of four with two children was $15,455 in 1995. The thresholds are adjusted for inflation annually using the Consumer Price Index.

Region: Most articles in this issue use the Census region delineation. The States in each region are as follows:

Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Rural-urban continuum codes: Classification system developed by ERS to group counties by the size of their urban population and their adjacency to larger areas. (See Margaret A. Butler and Calvin L. Beale, *Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993*, AGES 9425, U.S. Department of Agriculture, Economic Research Service, Sept. 1994).

Metro counties—

Central counties of metro areas of 1 million population or more

Fringe counties of metro areas of 1 million population or more

Counties in metro areas of 250,000 to 1 million population

Counties in metro areas of fewer than 250,000 population

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area

Urban population of 20,000 or more, not adjacent to a metro area

Urban population of 2,500 to 19,999, adjacent to a metro area

Urban population of 2,500 to 19,999, not adjacent to a metro area

Completely rural or less than 2,500 urban population, adjacent to a metro area

Completely rural or less than 2,500 urban population, not adjacent to a metro area

Nonmetro adjacent counties—

Nonmetro counties physically adjacent to one or more metro areas and having at least 2 percent of the employment labor force in the county commuting to the central metro county.

Transfer payments: Cash or goods that people and nonprofit institutions receive from government and some businesses (for example, liability payments) for which no work is currently performed. Receipt of transfer payments, however, may reflect work performed in the past. For example, elderly people receive Social Security now because they worked earlier in their lives and paid taxes to fund the program. Government transfers to individuals are grouped into the following categories: retirement and disability programs, medical programs, income maintenance programs, unemployment insurance, and veterans' programs. Note that payments from farm commodity programs are received as part of farmers' gross cash income from current farming activities. They are not transfer payments.

Typology Codes: Classification system developed and periodically revised by ERS to group counties by economic and policy-relevant characteristics. The typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR 89, U.S. Department of Agriculture, Economic Research Service, Dec. 1994.

Economic types (mutually exclusive, a county may fall into only one economic type):

Farming dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Mining dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Manufacturing dependent—Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Government dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Services dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance, insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years from 1987 to 1989.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years from 1987 to 1989.

Policy types (overlapping, a county may fall into any number of these types and one economic type):

Retirement-destination—The population aged 60 years and over in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land area in the year 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, 1990.

Transfers-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over the 3 years from 1987 to 1989.

Unemployment rate: The number of unemployed people 16 years and older as a percentage of the civilian labor force age 16 years and older.

Appendix: 1994 Current Population Survey Redesign

The Current Population Survey (CPS) is the main source of information on the employed, the unemployed, and those not in the labor force. The official national unemployment rate that is reported monthly is estimated from the CPS. The CPS is an important source of labor force indicators of the nonmetro economy as well.

The CPS was established in 1940, and is conducted by the Bureau of the Census (Census) for the Bureau of Labor Statistics (BLS). Every month, about 47,000 households are interviewed for the survey. Each household is surveyed for 4 consecutive months, then is not surveyed for the next 8 months, then is surveyed again for 4 months. This 4-8-4 rotation allows the CPS to track a household for 16 months.

The last major redesign was in 1967. For over 25 years the same survey was used, while in that time there were changes in the economy such as a shift from manufacturing jobs to service-sector jobs, and also changes in society such as more women in the work force. In addition, there were advances in survey research methods and data collection technology. Consequently, in 1986, Census and BLS undertook the effort to modernize the CPS. The redesigned survey was introduced in January 1994.

New Questionnaire—The goals of the redesign were: (1) to measure more precisely the official labor force concepts; (2) to collect additional data; (3) to implement several definitional changes; and (4) to computerize the interviewing process. The survey questionnaire was completely overhauled. The new questionnaire is expected to more accurately measure those persons on layoff, job search methods used by the unemployed, the number of hours at work, the reasons for working part time, occupation and industry of the respondent, and earnings of the respondent. New data now collected include information on multiple jobholding and usual hours worked.

Among the definitional changes implemented include changes in the discouraged worker definition. Previously, a discouraged worker was defined as a person who wants a job, but believes no job is available to him/her, and so has stopped job hunting, and consequently cannot be classified as unemployed. The new definition of discouraged worker adds the requirements that the respondent must have engaged in some jobsearch within the past year and must be currently available to take a job. Those who previously would have been classified as discouraged workers but do not meet the requirements in the new definition are classified as "other marginally attached workers." Monitoring the number of discouraged workers is important in measuring labor market distress. Looking at the levels of discouraged workers is especially important in metro/nonmetro analysis, as nonmetro areas have had disproportionately more discouraged workers than metro areas.

Computerization—The redesigned survey is computerized. Each survey taker uses a laptop or other computer that contains the questionnaire. The household's responses are entered into the computer, then the data are transmitted electronically to Census. Computerization is expected to result in greater consistency from respondent to respondent, to allow for the use of a more complex questionnaire, and to provide the flexibility to tailor the questions to the individual's situation. In addition, the computer automatically checks for internal consistency during the interview, allowing for potential errors to be caught and corrected. Also, the computer allows for a "dependent interview," meaning using information in the current interview that was obtained in a previous interview with that respondent.

Technical changes—In January 1994 new population controls were introduced into the CPS. These population controls are population projections based on the 1990 census, and adjusted for the estimated population undercount. These controls replaced population controls based on the 1980 census. After the monthly data are collected, weights are used to "inflate" the sample to estimates of the entire population and labor force. The weights are forced to sum to the population controls. These controls ensure that the CPS sample estimates match independent controls of population with respect to the 50 States and the District of Columbia, and race-age-sex groups. In 1996 BLS revised the 1990-93 CPS figures to reflect the 1990 census controls.

Metro/nonmetro—After each decennial census the Office of Management and Budget (OMB) reevaluates the metro/nonmetro status of each county. In 1993 OMB issued a metro/nonmetro classification based on the 1990 census. In this last reclassification, 13 counties that were metro were reclassified as nonmetro, and 111 counties that were nonmetro were reclassified as metro, resulting in a net 98 counties newly metro. Overall, about 10 percent of the nonmetro population was reclassified as metro.

Also after each decennial census, BLS redesigns the CPS sample. The sample determines which households are selected for the CPS. The sample is updated in order to more efficiently represent the actual population. The new CPS sample was phased in starting in April 1994 and completed in July 1995. The process took 16 months due to the 4-8-4 rotation schedule. Each month the new in-rotation group was selected from the new sample.

The new OMB metro/nonmetro classification was phased in at the same time as the new CPS sample. Each month, the in-rotated households were chosen by the new sample and were recorded by the new metro/nonmetro classification. Consequently, the new classification took the 16 months that the CPS follows a household to be completely phased into the CPS, resulting in two metro/nonmetro classifications in use over April 1994-June 1995. Because of this phasing-in process of the new sample and the new metro/nonmetro classification, getting consistent CPS metro/nonmetro figures for 1994-95 is very difficult. ERS is working on this problem, and plans to publish metro/nonmetro CPS statistics for 1994-95 in the future.

For the CPS March Annual Demographic Supplement, however, the change in the metro/nonmetro classification was treated differently. The March 1994 Supplement occurred before the phase in of the new classification, so all households were recorded on the old classification. The March 1996 Supplement occurred after the phase in, so all households were recorded on the new classification. The March 1995 Supplement—data on 1994—occurred during the phase in, when a mix of the two classifications was in use. Census converted the public use data files of the March 1995 Supplement to the old classification, that is, the metro/nonmetro classification based on the 1980 census. However, summary reports on poverty and income were published by Census based both on the old and new classifications to provide consistent data series through the period of reclassification.

Time-series characteristics—The CPS data starting in January 1994 are not directly comparable with the previous data. This is due to the redesigned survey, including a new questionnaire, new labor force definitions, and new data collection techniques. It is thought that the measured national unemployment rate was not affected significantly by the redesign. However, some other indicators of the labor market show a measured change due to either definitional changes or new wording of the questionnaire. For example, under the new CPS a larger share of the unemployed have longer spells of unemployment than under the old CPS. This is thought to be due to dependent interviewing, resulting in more accurate responses, and to a reworded question allowing the respondent to report joblessness in weeks, months, or years.

Also in 1994, a new sample and the new definition of metro/nonmetro was introduced. The group of counties classified as nonmetro after the 1994-95 phase-in is different from the group classified as nonmetro from 1985-93.

ERS estimates versus BLS estimates—ERS is now estimating the metro/nonmetro statistics from the CPS directly. In the past, Census would provide these statistics to ERS. There are slight differences in the ERS figures from those estimated by BLS. There are two reasons for these differences. First, the CPS data provided to ERS is "suppressed." This means that the metro/nonmetro status of some households is not provided in order to ensure their confidentiality. For the 1996 data about 0.3 percent of the sample is suppressed. Second, ERS is not able to "composite" the data as is done by BLS. Compositing is a weighted average estimation technique that smooths the data month-to-month. An ERS estimate of an unemployment rate might then be 0.1-0.2 percentage point different from a BLS estimate. The benefit of ERS directly estimating the CPS statistics is that more information by metro/nonmetro can be reported than had previously been provided by BLS.

The quarterly CPS data that ERS is now reporting is not seasonally adjusted. To do a seasonal adjustment, a longer series of consistent data than is currently available is needed.

Because BLS is not currently publishing metro/nonmetro statistics, the ERS statistics are now the only ones available. BLS plans to resume publishing the metro/nonmetro statistics in the future. *[Karen S. Hamrick, 202-219-0789 (after October 24, 202-694-5426), khamrick@econ.ag.gov]*

Appendix table 1—Annual employment change by residence, region, and county type

	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96
				Percent		
U.S. total	-0.9	0.8	1.5	2.3	1.7	1.5
Metro	-1.0	0.6	1.4	2.2	1.7	1.7
Nonmetro	-0.1	1.7	1.9	2.8	1.7	0.9
Regions:						
Metro-						
Northeast	-2.7	-1.2	0.7	0.2	0.6	1.5
Midwest	-0.7	1.5	1.5	2.5	1.8	1.2
South	0.0	1.2	2.0	2.8	2.0	1.9
West	-1.3	0.4	1.0	2.8	2.3	1.9
Nonmetro-						
Northeast	-1.3	0.0	0.4	0.1	1.5	1.0
Midwest	0.3	1.8	2.4	3.0	1.7	0.8
South	-0.3	1.6	1.8	2.7	1.6	0.7
West	0.7	2.8	2.4	4.5	2.1	1.4
County type:						
Farming	0.1	1.4	1.2	3.3	0.8	0.9
Mining	-0.2	-0.2	0.6	1.6	0.8	0.5
Manufact.	-0.7	1.7	2.0	2.8	1.4	0.4
Govt.	0.2	2.0	1.5	2.4	2.4	1.4
Services	0.7	1.7	2.8	3.4	1.9	1.3
Nonspec.	0.0	2.0	1.9	2.5	2.1	0.8
Retirement	1.1	2.6	2.8	3.7	2.9	2.3
Fed. lands	0.6	2.5	2.7	4.7	2.4	1.0
Commuting	-0.0	1.7	2.6	2.8	2.1	0.6
Poverty	-0.3	1.7	1.6	2.8	1.8	0.3
Transfers	-0.1	1.9	1.9	3.0	1.8	0.9
Urban-rural:						
Metro-						
Core	-1.7	-0.1	1.0	1.9	1.6	1.7
Noncore	-0.1	1.4	1.9	2.5	1.9	1.6
Nonmetro-						
Adjacent	-0.2	1.6	1.9	2.8	1.8	0.9
Nonadj.	0.1	1.7	2.0	2.8	1.5	0.8

Source: Calculated by ERS from Local Area Unemployment Statistics data from the Bureau of Labor Statistics.

Appendix table 2—Metro and nonmetro labor force and unemployment by demographic group, 1996

	Metro			Nonmetro		
	Labor force	Unemployment rate	Adjusted Unemployment Rate	Labor force	Unemployment Rate	Adjusted Unemployment Rate
	1,000's	Percent		1,000's	Percent	
Age:						
16-19	6,058	17.3	25.1	1,766	15.2	23.5
20-24	10,869	9.1	15.2	2,513	10.4	16.2
25-34	28,017	5.1	8.3	5,754	5.9	9.5
35-44	29,781	4.2	6.8	6,737	4.1	6.8
45-54	21,305	3.4	5.8	5,073	3.2	5.7
55-64	9,566	3.5	6.2	2,557	3.1	5.5
65+	2,943	3.9	7.3	918	2.3	4.7
Gender:						
Women	50,215	5.4	9.5	11,602	5.8	10.5
Men	58,326	5.4	8.3	13,715	5.4	8.0
Race:						
White	79,005	4.1	6.8	21,799	4.7	7.8
Black	12,930	10.3	16.1	1,861	12.9	18.5
Hispanic	11,677	9.0	14.4	1,123	8.4	14.1
Education:						
Less than high school graduation	14,333	12.8	19.7	4,329	11.3	17.3
High school diploma or GED	33,180	5.9	9.8	10,254	5.4	9.1
Some college, including Associate degree	31,177	4.4	7.2	6,741	4.1	6.9
College	29,850	2.5	4.2	3,993	2.3	4.0
Total	108,540	5.4	8.9	25,317	5.6	9.1

Note: Nonmetro residents are somewhat more likely to be less than high school graduation (who have a relatively high unemployment rate), and much less likely to be college graduates (who have a very low unemployment rate). As a result, the estimated nonmetro unemployment rate is slightly higher than the metro rate, even though nonmetro unemployment rates are lower for each specified level of education.

Source: Calculated by ERS using data from the Current Population Survey.

Appendix table 3—Metro employment: Quarterly averages, first quarter 1990 through second quarter 1997

Year/ quarter	Population 16+	Labor force	Labor force participation	Employed	Employment/ population ratio	Unemployed	Unemployment rate	Adjusted unemployment rate
	——Thousands——		Percent	Thousands	Percent	Thousands	——Percent——	
1997—								
2nd	162,754	109,746	67.4	104,280	64.1	5,466	5.0	8.2
1st	162,640	109,716	67.5	103,585	63.7	6,131	5.6	9.0
1996—								
4th	161,663	109,373	67.7	103,950	64.3	5,423	5.0	8.1
3rd	160,963	109,342	67.9	103,535	64.3	5,807	5.3	8.7
2nd	160,575	108,337	67.5	102,443	63.8	5,894	5.4	8.9
1st	160,513	107,108	66.7	100,697	62.7	6,411	6.0	9.6
1995—								
4th	158,805	106,484	67.1	100,883	63.5	5,601	5.3	8.7
1995-1st quarter through 3rd quarter					Data not available			
1994					Data not available			
1993—								
4th	152,412	102,181	67.0	95,690	62.8	6,491	6.4	9.3
3rd	151,866	102,631	67.6	95,593	62.9	7,037	6.9	10.1
2nd	151,489	101,900	67.3	94,673	62.5	7,227	7.1	10.3
1st	151,024	100,485	66.5	92,736	61.4	7,749	7.7	11.0
1992—								
4th	150,793	100,813	66.9	93,585	62.1	7,228	7.2	10.3
3rd	150,330	102,137	67.9	94,388	62.8	7,749	7.6	10.8
2nd	150,176	101,300	67.5	93,598	62.3	7,702	7.6	10.7
1st	150,005	100,218	66.8	92,262	61.5	7,956	7.9	11.3
1991—								
4th	149,389	99,978	66.9	93,206	62.4	6,772	6.8	9.9
3rd	149,316	101,005	67.6	94,209	63.1	6,796	6.7	9.8
2nd	148,762	100,073	67.3	93,406	62.8	6,667	6.7	9.5
1st	148,348	99,040	66.8	92,246	62.2	6,794	6.9	9.8
1990—								
4th	147,921	99,548	67.3	93,885	63.5	5,663	5.7	8.3
3rd	147,476	100,424	68.1	94,846	64.3	5,579	5.6	8.1
2nd	147,396	99,655	67.6	94,481	64.1	5,174	5.2	7.6
1st	147,154	98,794	67.1	93,319	63.4	5,475	5.5	7.4

Note: Metro and nonmetro population, labor force and employment totals for the 4th quarter of 1995 are not consistent with values for 1996. The Bureau of Labor Statistics is currently working with the Census Bureau to identify the reasons for this inconsistency and develop consistent values.

Source: Calculated by ERS using data from the Current Population Survey.

Appendix table 4—Nonmetro employment: Quarterly averages, first quarter 1990 through second quarter 1997

Year/ quarter	Population 16+	Labor force	Labor force participation	Employed	Employment/ population ratio	Unemployed	Unemployment rate	Adjusted unemployment rate
	——Thousands——		Percent	Thousands	Percent	Thousands	——Percent——	
1997—								
2nd	39,705	25,901	65.2	24,611	62.0	1,290	5.0	8.2
1st	39,386	24,006	63.5	23,392	59.4	1,614	6.5	9.9
1996—								
4th	39,407	25,384	64.4	24,031	61.0	1,350	5.3	8.6
3rd	39,453	25,748	65.3	24,386	61.8	1,360	5.3	8.7
2nd	39,301	25,369	64.6	23,994	61.1	1,375	5.4	9.1
1st	38,889	24,767	63.7	23,205	59.7	1,562	6.3	10.2
1995—								
4th	40,121	25,831	64.4	24,463	61.0	1,368	5.3	9.3
1995-1st quarter through 3rd quarter					Data not available			
1994					Data not available			
1993—								
4th	43,209	27,447	63.5	25,821	59.8	1,626	5.9	9.6
3rd	43,202	27,777	64.3	26,087	60.4	1,689	6.1	9.9
2nd	43,066	27,308	63.4	25,497	59.2	1,811	6.6	10.3
1st	43,082	27,070	62.8	24,939	57.9	2,131	7.9	11.9
1992—								
4th	42,822	27,279	63.7	25,526	59.6	1,754	6.4	10.3
3rd	42,694	27,434	64.3	25,510	59.8	1,925	7.0	10.8
2nd	42,331	26,995	63.8	25,068	59.2	1,927	7.1	10.8
1st	42,070	26,243	62.4	24,032	57.1	2,211	8.4	12.6
1991—								
4th	42,261	26,440	62.6	24,718	58.5	1,722	6.5	10.2
3rd	41,805	26,355	63.0	24,651	59.0	1,705	6.5	10.4
2nd	41,893	26,495	63.2	24,611	58.7	1,884	7.1	10.8
1st	41,924	26,000	62.0	23,826	56.8	2,174	8.4	12.4
1990—								
4th	41,945	26,306	62.7	24,698	58.9	1,608	6.1	9.8
3rd	41,877	26,545	63.4	25,074	59.9	1,471	5.5	9.0
2nd	41,520	26,320	63.4	24,815	59.8	1,505	5.7	9.0
1st	41,366	25,767	62.3	24,055	58.2	1,712	6.6	10.1

Note: Metro and nonmetro population, labor force, and employment totals for the 4th quarter of 1995 are not consistent with values for 1996. The Bureau of Labor Statistics is currently working with the Census Bureau to identify the reasons for this inconsistency and develop consistent values.
Source: Calculated by ERS using data from the Current Population Survey.

Appendix table 5—Characteristics of multiple jobholders, 1996

				Multiple jobholders		
Characteristics	Total employed		Multiple jobholders	Hours worked at all jobs	Hours worked at main job	Hours worked at other job(s)
	Thousands		Percent	Average weekly hours		
Metro	102,657	6,331	6.2	48.7	35.4	13.3
Nonmetro	23,904	1,716	7.2	49.7	35.6	14.0
Nonmetro:						
Age:						
16-19	1,497	89	5.9	36.4	25.3	11.1
20-24	2,251	159	7.1	43.2	32.0	11.2
25-34	5,412	387	7.2	50.2	35.8	14.4
35-44	6,459	495	7.7	51.8	37.6	14.2
45-54	4,910	397	8.1	52.8	37.5	15.3
55-64	2,478	154	6.2	49.6	35.5	14.2
65+	897	35	3.9	38.0	26.3	11.6
Sex:						
Male	12,978	943	7.3	54.8	39.7	15.1
Female	10,926	773	7.1	43.4	30.6	12.8
Race/ethnicity:						
White	20,785	1,563	7.5	49.6	35.7	13.9
Black	1,621	87	5.4	50.9	35.9	15.0
Hispanic	1,029	41	4.0	50.3	33.4	16.9
Education:						
Less than high school graduation	3,841	147	3.8	44.7	31.5	13.3
High school diploma or GED	9,697	591	6.1	50.6	36.5	14.1
Some college, including Associate degree	6,464	584	9.0	50.5	36.1	14.5
College graduate	3,903	393	10.1	48.8	35.3	13.6
Region:						
Northeast	2,598	185	7.1	45.6	33.1	12.5
Midwest	8,058	728	9.0	50.2	35.7	14.5
South	9,769	530	5.4	51.2	37.1	14.2
West	3,480	272	7.8	48.0	34.4	13.6

Source: Calculated by ERS using data from the Current Population Survey.

Appendix table 6—Poverty rates by residence, region, and selected characteristics, 1995

	Poverty rate		Share of poor	
	Nonmetro	Metro	Nonmetro	Metro
	Percent			
Total	15.6	13.4	100.0	100.0
By region:				
Northeast	11.3	12.7	7.9	20.5
Midwest	11.6	10.8	22.8	17.4
South	19.2	14.6	53.6	35.7
West	16.5	14.7	15.6	26.4
By race/ethnicity:				
White non-Hispanic	12.2	7.4	64.9	38.6
Black non-Hispanic	34.8	28.1	20.4	28.1
Hispanic	30.6	30.2	9.7	27.4
Native American	35.6	28.1	3.9	1.4
By family type:				
Husband-wife headed families	8.3	6.4	36.7	31.3
Female-headed families	39.9	35.6	36.4	42.3
Women living alone	31.3	21.8	14.4	13.1
Men living alone	22.4	17.1	8.9	9.4
By age:				
Age 0-17	22.4	20.4	39.1	40.6
Age 18-64	13.1	11.0	49.2	51.0
Age 65+	13.1	9.7	11.7	8.4
By family employment:				
One or more full-time-full-year worker	5.6	4.2	23.2	21.9
Part-time or part-year worker(s) only	37.4	33.3	38.9	36.3
No family-member employed	56.5	64.5	27.4	34.8
No working-age person in family	15.2	10.8	10.6	7.0
By educational attainment: (Persons age 25 and above only)				
Less than high school graduation	23.6	25.4	45.9	44.2
High school diploma or GED	10.4	9.3	33.8	30.8
Some college or Associate degree	8.5	6.8	16.1	17.5
Bachelor's degree or more	3.5	2.9	4.2	7.6

Notes: See appendix for definitions of regions. Shares of poor by race-ethnicity and family type do not add to 100 percent because not all categories are included. Work status refers to employment during the entire year. For persons living alone, family employment refers to the person's own work status.

Source: Calculated by ERS using data from the Bureau of the Census March 1996 Current Population Survey.

Appendix table 7—Characteristics of workers by poverty status and residence, 1995

	Nonmetro workers			Metro workers		
	Poor	Near-poor	Other	Poor	Near-poor	Other
			Percent			
By region:						
Northeast	6.8	10.2	11.7	15.8	17.5	22.4
Midwest	25.9	27.7	35.1	18.4	18.9	23.7
South	47.9	47.8	38.5	38.4	36.3	31.9
West	19.4	14.3	14.7	27.4	27.3	22.0
By age:						
Less than 25 years	30.7	21.5	12.6	32.1	22.5	12.8
25-44 years	52.8	58.8	50.9	53.6	58.5	55.1
45-64 years	16.5	19.7	36.5	14.3	19.0	32.1
By race:						
White (Non-hispanic)	69.7	75.5	90.2	44.2	55.2	78.6
Black	15.9	13.4	5.2	24.7	17.9	10.1
Hispanic	10.6	9.1	3.5	29.9	25.9	10.8
Other	4.8	2.0	1.1	1.2	1.0	0.5
By work effort:						
Part-time, part-year	69.7	37.1	22.6	68.9	36.9	22.1
Full-time, full-year	30.3	62.9	77.4	31.1	63.1	77.9
By educational attainment for workers 25 and over:						
Less than high school	32.0	23.3	9.5	37.3	25.2	6.0
High school and over	68.0	76.7	90.5	62.7	74.8	94.0
By family type:						
Female head	47.8	27.3	10.5	49.0	33.8	15.6
Male head	52.2	72.7	89.5	51.0	66.2	84.4
By presence of young children:						
One or more children under 6	31.8	27.9	15.5	34.1	26.5	16.1
No children under 6	68.2	72.1	84.5	65.9	73.5	83.9
By barriers to earning a livable wage:						
No barrier	35.2	47.8	72.8	35.5	47.7	74.4
One barrier	39.6	42.0	25.7	35.8	40.0	24.0
Two barriers	21.7	9.8	1.5	24.9	11.9	1.6
Three barriers	3.5	0.4	0.0	3.8	0.4	0.0

Note: See appendix for definitions of regions.
Source: Calculated by ERS using data from the March Supplement of the 1996 Current Population Survey.

Appendix table 8—Annual population change from migration, per capita income of in-, out-, and nonmigrants, and annual change in per capita income due to migration, by residence, region, and county type, average of 3 years: 1992-93, 1993-94, and 1994-95

Item	Counties	Population change from migration			Per capita income by migration status			Income change from migration
		In	Out	Net	Inmigrants	Outmigrants	Nonmigrants	
		—Percent change—			—Dollars—			
U.S. total	3,070	6.2	6.1	0.1	14,943	14,977	16,189	-3
Metro	805	6.1	6.2	-0.1	15,998	16,078	17,206	-4
Nonmetro	2,265	6.6	6.0	0.6	11,176	10,579	12,229	30
Region:								
Metro—								
Northeast	122	4.4	5.0	-0.6	20,092	20,282	19,314	-14
Midwest	221	5.3	5.5	-0.2	16,220	16,825	17,535	-31
South	372	7.7	7.2	-.5	14,726	14,425	15,792	16
West	90	6.2	6.5	-0.3	15,210	14,853	16,771	28
Nonmetro—								
Northeast	95	5.0	5.0	0.0	13,832	13,359	13,749	24
Midwest	822	6.0	5.6	0.4	11,050	10,968	12,696	-1
South	999	6.8	6.1	0.7	10,594	9,833	11,458	41
West	349	8.9	7.5	1.4	11,576	10,402	12,343	79
Rural-urban continuum:								
Metro—								
Core, large metro	166	5.7	6.2	-0.5	17,551	17,836	18,483	-13
Outlying, large metro	131	8.2	6.5	1.7	15,872	14,607	15,896	82
Medium metro	309	6.3	6.0	0.3	14,480	14,089	15,820	19
Small metro	199	6.8	6.4	0.4	12,655	12,272	14,445	17
Nonmetro—								
Adjacent, large urban	133	6.4	5.9	0.5	12,372	11,955	13,606	18
Nonadjacent, large urban	112	7.6	7.4	0.2	11,114	10,708	13,167	26
Adjacent, small urban	606	6.5	5.7	0.8	11,189	10,425	11,963	38
Nonadjacent, small urban	650	6.4	5.9	0.5	10,638	10,107	11,740	26
Adjacent, rural	245	7.3	6.2	1.1	10,638	10,107	11,740	59
Nonadjacent, rural	519	6.7	5.9	0.7	10,136	9,357	10,401	44
County types:								
Economic—								
Farming	544	6.6	6.4	0.2	8,997	8,927	10,550	2
Mining	143	5.9	5.8	0.1	10,114	10,490	11,802	-23
Manufacturing	502	5.7	5.1	0.6	11,223	11,050	12,542	2
Government	252	8.7	8.6	0.1	10,589	10,226	11,918	30
Services	323	7.2	6.0	1.2	12,921	11,358	13,172	91
Nonspecialized	482	6.6	5.8	0.8	10,981	10,326	11,908	31
Policy—								
Retirement	190	9.1	6.7	2.5	13,552	10,881	12,729	201
Federal lands	278	9.1	7.5	1.6	12,054	10,580	12,381	106
Commuting	377	7.3	6.2	1.1	11,170	10,481	11,975	35
Poverty	536	6.5	6.1	0.4	9,031	8,750	9,953	14
Transfers	384	6.7	5.8	0.9	9,692	8,850	10,083	46

Notes: Statistics calculated separately for data from 1992-93, 1993-94, and 1994-95, then averaged. Values are the aggregate values for all counties in the category. See appendix for definition of regions, for definition of county types, and for definition of urban-rural categories.

Source: Calculated by ERS using data from the Internal Revenue Service.

Appendix table 9—Population change, net migration, and natural increase by county types, 1990 to 1996

County type	Counties	Population change	Share of counties with increasing population	Net migration	Share of counties with net inmigration	Natural change	Share of counties with natural increase
	Number	Percent					
Total nonmetro	2,291	5.9	75	3.6	67	2.3	74
Farming-dependent	556	4.0	50	2.1	47	1.8	53
Mining-dependent	146	2.8	64	.2	52	2.6	81
Manufacturing-dependent	506	5.2	87	3.0	75	2.2	90
Government-dependent	244	6.1	85	1.8	74	4.3	84
Services	323	8.4	83	6.5	75	2.0	73
Nonspecialized	484	6.2	81	4.5	75	1.7	74
Retirement	190	16.3	100	14.6	99	1.8	63
Recreational	282	11.2	94	8.6	88	2.6	77
Federal lands	270	13.8	93	10.0	83	3.8	
Persistent poverty	535	4.9	74	1.8	57	3.1	82
Adjacent to large metro	184	8.5	94	5.9	86	2.7	84
Adjacent to small metro	805	6.1	84	4.0	75	2.2	82
Nonadjacent to metro	1,302	5.0	66	2.6	58	2.4	67
Metro	813	6.9	90	1.8	74	5.0	96

Notes: County types are not mutually exclusive, except that farming, mining, manufacturing, government, services, and nonspecialized types are mutually exclusive of each other. Recreational counties defined by Johnson and Beale in Rural Conditions and Trends, Vol. 5 No. 1, Spring 1994. Adjacency defined by Urban Influence Code, Ghelfi and Parker. All other types defined in Cook and Mizer, 1994. Percent change is aggregate change for all cases in category. Number of counties reflects the aggregation of Virginia independent cities with their counties of orgin. (See Data Sources and Definitions appendix for more information.)

Source: Calculated by ERS using data from the Bureau of the Census.

Appendix table 10—Characteristics of the foreign-born and native nonmetro population, 1996

Characteristics	Native	Year of entry of the foreign-born population					
		Before 1980		1980-89		1990-96	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro[1]
		Naturalized citizens					
Total (thousands)	50,689	5,312	334	1,818	111	299	30
Age (%)							
Less than 18	27.8	.2	0.0	9.8	38.6	26.1	36.2
18 to 64	58.3	71.9	64.0	85.3	58.7	67.5	63.8
65 and over	13.9	27.8	36.0	5.0	2.7	6.4	0.0
Education (age 25+)(n)	32,115	5,156	331	1,479	62	177	15
Less than high school (%)	22.9	21.5	36.6	14.3	26.3	39.4	38.1
High school graduate	39.5	27.1	26.8	22.2	38.4	22.9	11.9
Some college	23.1	22.5	21.1	22.1	8.4	13.8	11.6
College 4+	14.6	28.9	15.6	41.4	26.9	23.9	38.4
Median earnings ($)	15,600	25,000	18,000	22,000	19,051	15,000	25,000
Unemployment (%)	6.3	2.4	0.4	3.5	8.5	5.3	10.0
Poverty (%)	15.7	9.4	11.6	11.1	21.3	22.8	14.0
Government assistance:							
Public assistance (%)	1.8	1.0	0.0	1.9	0.0	7.0	5.8
Food stamps (%)	11.5	4.8	2.1	7.4	4.8	12.6	23.7
Medicaid (%)	13.7	5.7	2.5	9.6	8.0	14.9	18.0
		Noncitizens					
Total (n)	50,689	3,675	240	6,219	268	5 ,962	288
Age (%)							
Less than 18	27.8	.4	.3	12.3	19.9	25.1	28.4
18 to 64	58.3	83.6	88.9	84.0	77.9	71.6	70.7
65 and over	13.9	16.0	10.8	3.7	2.2	3.3	.9
Education (age 25+) (n)	32,115	3,403	224	4,657	183	3,263	140
Less than high school (%)	22.9	49.1	53.3	45.8	53.9	36.2	47.6
High school graduate	39.5	23.5	20.6	21.9	20.0	20.3	28.4
Some college	23.1	16.2	18.2	13.7	17.1	13.7	10.5
College 4+	14.6	11.2	7.9	18.5	9.0	29.8	13.5
Median earnings ($)	15,600	17,000	13,782	14,000	12,000	11,128	10,000
Unemployment (%)	6.3	5.4	3.5	5.6	9.3	6.6	11.4
Poverty (%)	15.7	18.8	21.5	27.2	30.1	34.2	33.2
Government assistance:							
Public assistance (%)	1.8	3.1	2.8	4.1	5.0	3.2	1.0
Food stamps (%)	11.5	11.3	13.0	15.9	26.6	16.3	13.3
Medicaid (%)	13.7	13.8	11.4	14.7	22.3	17.1	8.3

[1] Due to the small number of observations for nonmetro naturalized citizens whose year of entry was between 1990-1996 caution should be used when interpreting results.

Source: Calculated by ERS using data from the March 1996 Current Population Survey.

Appendix table 11—Demographic and earnings characteristics of hired farmworkers, (annual averages) 1990-96

	Hired farmworkers						
Characteristics	1990	1991	1992	1993	1994[1]	1995[1]	1996
				Thousands			
Number of workers	886	884	848	803	793	849	906
				Percent			
Total	100	100	100	100	100	100	100
Gender:							
Male	82.9	82.4	83.8	84.7	83.7	84.5	84.2
Female	17.1	17.6	16.2	15.3	16.3	15.5	15.8
Racial/ethnic group:							
White	61.0	60.3	59.7	57.5	51.3	53.5	58.9
Hispanic	29.4	28.3	30.7	33.6	41.3	41.1	36.0
Black and other	9.6	11.4	9.6	8.9	7.4	5.3	5.1
Age (years):							
16-24	31.5	25.0	24.7	27.2	28.0	30.1	27.9
25-44	47.6	51.6	52.6	51.1	48.8	44.2	46.0
45-59	14.4	15.1	16.3	16.2	17.2	18.2	19.1
60 and older	6.5	8.3	6.4	5.5	6.0	7.5	7.0
Marital status:							
Married	53.3	53.4	53.5	51.8	58.5	58.5	56.3
Widowed, divorced, or separated	8.9	11.2	10.1	9.5	8.7	7.5	8.1
Never married	37.8	35.4	36.4	38.6	32.8	34.0	35.6
Schooling completed:[2]							
0-4 years	11.1	11.5	14.1	16.4	13.4	14.2	13.1
5-8 years	21.6	21.2	16.0	17.4	22.9	22.5	19.9
9-11 years	22.8	22.6	27.0	21.8	22.7	22.7	24.2
12 years	31.4	31.0	26.9	27.0	25.9	25.9	25.4
13 years or more	13.1	13.7	16.0	17.4	15.6	14.7	17.4
				Dollars			
Median weekly earnings:[3]							
Full-time workers[4]	288	276	268	272	265	268	280
All workers	240	242	224	239	245	247	250

Note: Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

[1] Revised

[2] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[3] Median earnings are in 1996 dollars.

[4] Full-time workers usually work 35 or more hours per week.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Appendix table 12—Demographic and earnings characteristics of all wage and salary workers (annual averages), 1990-96

Characteristics	All wage and salary workers 1990	1991	1992	1993	1994[1]	1995[1]	1996
				Thousands			
Number of workers	104,351	103,166	104,054	105,407	108,166	110,220	112,142
				Percent			
Total	100	100	100	100	100	100	100
Gender:							
Male	52.7	52.5	52.2	52.1	52.4	52.4	52.2
Female	47.3	47.5	47.8	47.9	47.6	47.6	47.8
Racial/ethnic group:							
White	78.3	78.1	77.9	77.7	76.3	76.2	75.0
Hispanic	7.9	8.0	8.0	8.2	9.3	9.5	9.7
Black and other	13.8	13.9	14.1	14.1	14.4	14.3	15.3
Age (years):							
16-24	15.8	17.2	16.7	16.6	17.1	16.8	16.2
25-44	56.5	55.4	55.2	54.7	54.3	53.9	53.8
45-59	21.8	21.7	22.5	23.2	23.4	24.0	24.7
60 and older	5.9	5.7	5.6	5.5	5.2	5.3	5.3
Marital status:							
Married	58.2	58.5	58.3	58.2	57.9	58.0	58.0
Widowed, divorced, or separated	14.3	14.3	15.4	14.6	14.5	14.4	14.5
Never married	27.5	27.2	27.2	27.1	27.6	27.6	27.5
Schooling completed:[2]							
0-4 years	1.0	0.9	0.9	0.8	0.8	0.8	0.7
5-8 years	4.0	3.7	3.0	2.8	2.8	2.7	2.7
9-11 years	10.8	10.2	10.1	9.8	9.5	9.5	9.7
12 years	39.4	39.2	35.0	34.4	33.3	32.7	32.4
13 years or more	44.8	46.0	51.0	52.2	53.6	54.3	54.4
				Dollars			
Median weekly earnings[3]							
Full-time workers[4]	485	492	492	494	489	494	481
All workers	432	426	425	434	423	412	415

Note: Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

[1] Revised.

[2] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[3] Median earnings are in 1996 dollars.

[4] Full-time workers usually work 35 or more hours per week.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Appendix table 13—Farm operator household income, by selected characteristics, 1995

Item	Households		Mean household income		Share from off-farm sources[1]		Percent of U.S. average household income[2]
	Number	RSE[3]	Dollars	RSE[3]	Percent	RSE[3]	Percent
All farm households	2,036,810	2.5	44,392	2.8	89	1.4	99
Operator's age:							
Less than 35 years	168,825	9.6	32,506	6.7	93	6.0	72
35 to 44 years	407,345	5.2	47,266	6.2	89	3.2	105
45 to 54 years	476,807	4.9	51,953	4.2	92	2.3	116
55 to 64 years	469,052	5.2	50,421	7.0	88	2.9	112
65 years or older	514,780	4.7	33,518	5.5	87	3.7	75
Operator's education:							
Less than high school	425,612	5.6	30,173	10.6	94	2.9	67
High school	819,087	4.0	41,479	4.2	87	2.4	92
Some college	443,374	5.4	48,726	4.8	86	3.6	108
College	348,736	5.4	63,075	5.2	93	2.3	140
Operator's occupation:							
Farming	903,820	2.5	40,342	4.0	65	3.3	90
Other occupation	797,718	4.7	53,425	4.4	109	1.1	119
Retired	335,272	7.0	33,815	7.3	95	5.0	75
Type of farm:							
Cash grains	383,554	3.7	48,922	5.9	74	3.1	109
Other crops	468,177	5.1	53,476	5.6	79	3.3	119
Beef, hogs, or sheep	947,190	3.9	37,605	3.9	108	2.0	84
Dairy	121,506	4.8	47,707	15.6	48	18.8	106
Other livestock	116,383	14.5	44,695	15.2	109	4.7	99
Sales class of farm:							
Less than $50,000	1,514,542	3.3	39,814	3.6	108	1.3	89
$50,000 or more	522,268	2.1	57,667	4.5	51	4.7	128
$50,000 - $99,999	192,476	4.9	33,367	6.6	88	4.5	74
$100,000 - $249,999	215,375	3.2	47,093	9.3	62	7.3	105
$250,000 - $499,999	71,674	4.3	72,307	8.4	41	12.5	161
$500,000 or more	42,743	4.2	195,825	7.5	16	10.5	436
Farm organization:							
Individual	1,880,516	2.7	42,354	3.0	93	1.4	94
Partnership	100,226	7.1	64,387	9.7	68	7.2	143
Family corporation	56,067	9.9	76,978	10.4	50	11.8	171
Major farming region:							
Northeast	135,899	7.0	44,583	9.0	91	6.4	99
Lake States	220,451	7.0	41,427	6.9	87	3.3	92
Corn Belt	412,522	5.5	46,049	5.7	85	2.6	102
Northern Plains	180,989	6.5	39,148	7.9	74	6.6	87
Appalachian	295,109	6.8	40,416	8.7	94	2.6	90
Southeast	150,529	7.8	48,724	10.4	97	2.8	108
Delta	109,622	8.8	37,532	9.1	102	4.2	84
Southern Plains	270,893	8.4	42,853	7.8	100	4.3	95
Mountain	111,797	7.5	42,133	10.1	89	4.9	94
Pacific	148,997	12.3	63,421	13.7	80	8.2	141

[1] Income from off-farm sources can be more than 100 percent of total household income if farm income is negative. [2] Mean household income divided by U.S. mean household income ($44,938). [3] The relative standard error (RSE) provides the means of evaluating the survey results. A smaller RSE indicates greater reliability of the estimate.

Source: Calculated by the Economic Research Service using data from the 1995 Farm Costs and Returns Survey (FCRS).

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Rural Industry

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Value-Added Manufacturing—An Important Link to the Larger U.S. Economy

The value of raw materials in agricultural- and wood-based products represents only a fraction of each dollar paid by the consumer for these products. Activities that add value to raw inputs are an important link between agriculture, forestry, and the broader economy.

This Rural Industries issue of *Rural Conditions and Trends* is devoted to analyses of farm- and forest-related manufacturing. Adding value to locally grown farm and forest products through processing and marketing activities is a popular approach to revitalizing rural communities. Federal and State agencies have shown considerable interest in helping communities implement "value-added" economic development efforts. However, little research and analysis is available to policymakers, community leaders, and economic development practitioners who are designing and evaluating "value-added" development strategies. This issue of *Rural Conditions and Trends* is intended to fill this need.

In this issue we report on manufacturing industries that rely on farm or forest products for a substantial portion of their material inputs (excluding labor, capital, and services). Using Department of Commerce data on interindustry transactions, we identified a set of manufacturing industries that obtain at least 20 percent of their inputs from farm or forest products, either directly from the farm or forestry/logging industries or indirectly through early-stage processors or wholesalers (see appendix 2 "Definitions"). We refer to this selected group of farm- and forest-based manufacturers as "value-added manufacturers." Technically, all manufacturing industries are "value-added manufacturers," because all add value to their material inputs. For the sake of simplicity, when we refer to "value-added manufacturers" in this issue, it is understood that we are referring to manufacturers that rely on farm- and forest-based materials.

The articles in this issue look at various aspects of these industries and the demand for their products. Trends in industrial production show that most value-added sectors are growing at a moderate rate, but tobacco and leather products are stagnant or declining. Geographic patterns of job growth and plant location indicate that value-added industries are a growing source of rural jobs and that value-added establishments have increasingly chosen rural locations during the 1990's. Lower rural labor costs may be one of the factors attracting value-added manufacturers. Rural nonmetro value-added workers earn about 20 percent less than their urban counterparts. Value-added industries rely more on low-skill, male, and Hispanic workers than do other manufacturing industries. Wages are lower in value-added industries than they are in other manufacturing, a reflection of the low skill requirements and relatively few professional and technical workers. Value-added industries support additional economic activity in their local area by purchasing raw materials locally. Analyses of capital use by value-added manufacturers show that food, tobacco, and paper manufacturers are among the more capital-intensive manufacturing businesses, while manufacturers of lumber, other basic wood products, and leather products use much less capital per worker. Recent levels of capital investment are consistent with the moderate growth during the 1990's shown by production indexes. Analysis of capital investment decisions by individual value-added businesses shows that expansion of productive capacity is the most frequently cited reason for undertaking investment plans. Most value-added manufacturers used internally generated funds or bank loans to finance their investment plans, and most did not have difficulty arranging outside financing. Exports are an important component of the demand for value-added manufacturers' products, and value-added exports support over 90,000 U.S. jobs. Holding aside the effects of fluctuations in international financial markets, trade liberalization as a result of the Uruguay Round of the General Agreement on Tariffs and Trade should expand markets for many value-added products.

In summary, farm- and forest-based value-added industries have potential to bring additional economic growth to rural areas rich in agricultural and forest resources. Low labor costs and access to raw materials at rural locations are attractive to value-added processors. Less stringent environmental regulations and lower taxes may also attract plants to rural areas. Community leaders should be aware that jobs in value-added industry are relatively low in skill and educational requirements (see Michael J. Broadway, "Hogtowns and Rural Development," *Rural Development Perspectives* vol. 9, no.1, February 1994). Value-added jobs generally pay less than jobs in other manufacturing industries, but more than jobs in food service and retail trade.

Value-added industries are growing and expanding productive capacity, but not as fast as some other industries that also have a strong presence in rural areas, such as industrial machinery, transportation, and electrical equipment. The value-added development strategy may be best-suited for rural communities that are rich in natural resources, but lack easy access to customers, skilled work force, natural amenities, infrastructure, or "the critical mass" of related firms needed to attract businesses in faster growing industries.

In addition to our analysis of value-added industries, this issue also includes a special appendix to serve the needs of those readers who rely on Rural Conditions and Trends for the latest estimates of employment and earnings in all industries. Farm and farm-related employment and food and fiber employment estimates first published last year have been updated to more recent years and appear in the second special appendix. Estimates of economic activity generated by exports of bulk and processed agricultural products (published in previous years in ERS' Foreign Agricultural Trade of the United States series of reports) appear in the last appendix in this issue.

Most of the Consumer Dollar Goes to Value-Added Activities

Value added is defined as the difference between the final value of products and the value of the materials and inputs used to manufacture them. Value is added to raw materials by processing, refining, manufacturing, transporting, grading, assembling, packaging, and delivering products in a form that satisfies consumers' wants. The value added at each stage (farm, manufacturing, wholesale, transportation, and retail/food service) equals payments to factors of production (wages and salaries, dividends and interest, rent, and payment for services from other businesses). Labor costs are the largest component of value added, accounting for about 47 cents of each dollar added to farm products beyond the farm gate. The Food and Fiber System and farm and farm-related employment (FFRE) estimates reported in this issue demonstrate that value-added activities are an important link between production agriculture and the larger U.S. economy (app. tables 10, 11, and 12). Farm production, fisheries, forestry, and agricultural services account for only 2 percent of U.S. jobs, but the broader measure of FFRE indicates that 15 percent of jobs have a link to agriculture.

The value of raw materials, such as wheat, corn, livestock, cotton, and logs, typically represents only a small fraction of each dollar spent on consumer products made from agricultural and forest products. For example, the farm value of U.S.-grown food commodities represented 21 cents of each consumer dollar spent on food products in 1994 (similar statistics for wood products are not available). The share is much smaller for manufactured products like breakfast cereals and cigarettes.

Value-added beyond the farm gate has grown steadily, while farm receipts have grown more slowly. The farm share of the consumer food dollar fell from roughly one-third in the early 1970's to 21 percent in 1994. (Comparable statistics are unavailable for the wood products sector, but trends appear to be similar.) Much value-added activity occurs in urban areas. At the same time, more farm dollars appear to be bypassing small rural communities. As the number of people living on farms has fallen, many retail, service, farm-input, and marketing businesses have closed in far-flung small towns. As a result, farm families are more likely to spend their income in larger towns and cities. A large share of interest and rental payments in the increasingly capital-intensive farm sector may also go to individuals and businesses outside the local community. These trends have encouraged communities to adopt value-added development strategies as a means of revitalizing their economies.

Focus on Value-Added Manufacturing

In this issue, we focus on manufacturing activities that process agricultural raw materials, the type of value-added activity most likely to locate in rural areas. Retail, wholesale, transportation, and service activities generate more value-added than does manufacturing (see Food and Fiber System estimates of value-added by sector), but these activities tend to be located in urban areas near consumers. Direct farm marketing and agricultural tourism are an increasingly popular means of bringing retail and service value-added to rural areas (Fred Gale, "Direct Farm Marketing as a Rural Development Tool," *Rural Development Perspectives*, vol. 12, no. 2, pp. 19-25).

Economists have distinguished between "traditional" and "innovative" value-added activities. Traditional activities include flour-milling, meat packing, traditional bulk wholesaling, retailing, and farmers' markets. These activities are often mature industries, where the location of activity is long-established and determined by comparative advantage (the relative efficiency of producing a product in a particular region, determined by the region's labor cost, endowment of natural resources, and other factors). Recently, new farmers' markets have been established in many nontraditional urban locations and comparative advantage has changed in some industries. Red meat packing has shifted from urban to rural locations, and the pork industry has moved from the upper Midwest to the Southeast. Milk production and processing is shifting from the upper Midwest to Western States, and further shifts may occur if the current system of milk marketing orders is abolished.

Much of the attention has been focused on innovative value-added activities (direct marketing, onfarm recreation, biotechnology), industrial uses for agricultural and forest products (such as ethanol and soy-based inks), and nontraditional crops (such as crambe and kenaf) that can be used as industrial inputs. These activities are usually so specialized that they are not measured separately in statistics on businesses published by the Bureau of the Census and other Government agencies. Because we rely upon these statistics for much of our analysis, this issue will deal with broader statistical categories, which are often dominated by traditional value-added businesses.

Many manufacturing industries use inputs derived from agricultural and forest products. Besides food, tobacco, lumber, and paper industries, the chemical and textile industries each used over $5 billion of agriculturally derived materials in 1992 (See *Industrial Uses of Agricultural Materials Situation and Outlook Report*, IUS-7, July 1997). The furniture industry used over $4 billion, rubber and miscellaneous plastics and leather industries used between $2 and $3 billion, and the electrical equipment, stone, clay, and glass, apparel, and miscellaneous manufacturing industries each used over $1 billion of agriculturally derived materials. We have analyzed trends only for industries where agricultural and forest products make up at least 20 percent of material inputs (see appendix 2, "Definitions"). This delineation of industries is based on the four-digit Standard Industrial Classification (SIC) codes, but some data are available only for less detailed two- or three-digit codes. Therefore industries classified as value-added vary somewhat among articles. *[Fred Gale, 202-694-5349, fgale@econ.ag.gov]*

Agricultural- and Wood Products-Based Manufacturing Industries Growing at a Modest Pace

A substantial share of economic activity is linked to agricultural- and forest-based raw inputs. Nonmetro areas have captured a relatively large share, but metro areas claim most of the value-added activity. A large share of the value that is added is paid to owners of capital. New investment is modest, consistent with modest rates of growth in production compared with other manufacturing industries.

The selected agricultural- and wood products-based industries examined in this issue accounted for $393 billion of value added in 1995 (table 1). That total was 23 percent of all value added in the U.S. manufacturing sector that year. This does not include value added in marketing and transportation activities by firms that handle finished manufactured goods. Clearly, a substantial share of economic activity is linked to agricultural- and forest-based inputs.

These industries used materials worth $496 billion, which was 26 percent of all manufacturing materials. This includes many nonagricultural materials and also "double-counts" some materials. For example, logs are counted as materials for sawmills, and the lumber produced by the sawmills is counted as materials for furniture industries. Nevertheless, value-added industries consume a large quantity of raw materials, and their high share of all manufacturing materials shows that they are relatively materials-intensive compared with other industries.

The importance of materials in their cost structure means that manufacturers of agricultural- and wood-based products are somewhat more likely to locate near their source of raw materials. That often means a rural location. While the majority of value-added activity occurs in urban areas, the share of agricultural- and forest products-based value added in nonmetro areas is relatively large compared with other industries. About 30 percent of value added in five major agricultural- and forest products-based industries (food, tobacco, lumber, paper, and leather products) was in nonmetro areas during 1994 (the most recent year for which we have data on nonmetro shares). In other manufacturing industries, the nonmetro share of value added was less than 17 percent.

Agricultural- and wood products-based industries account for an important part of the nonmetro manufacturing base. Five such industries (food processing, tobacco, lumber and wood products, pulp and paper, and leather products) account for 29 percent of all manufacturing value added in nonmetro counties (table 2). Food processing, with a share of nearly 14 percent, is the largest single nonmetro industry. Lumber and wood products and paper products each account for more than 7 percent. However, a large part of the nonmetro manufacturing base has little or no connection to agriculture or forestry. For example, four large nonmetro industries that have virtually no agricultural linkages (fabricated metal products, industrial machinery, electrical, and transportation equipment)

Table 1

Characteristics of selected value-added industries, 1995

Value-added industries account for over one-fifth of U.S. manufacturing

Item	Value-added industries[1]	Share of all manufacturing
	Billion dollars	Percent
Value added	393	23
Salaries and wages	111	18
Payment to other factors	282	26
Value of materials used	496	26
Capital expenditures	28	22
	Millions	
Employment	4.16	22

[1] Value-added industries include those defined in appendix, "Definitions," p. 69.

Source: U.S. Bureau of the Census, Annual Survey of Manufactures, 1995.

account for a share of value added identical to the share attributed to the five major agricultural- and forest products-based industries.

Capital-Intensive, Modest Levels of Investment

Wages and salaries of $111 billion were paid to 4.16 million persons employed in agricultural- and wood products-based industries in 1995 (table 1). Wages and salaries account for about 28 percent of value added. Wages are relatively low in value-added industries (see "Value-Added Workers Earn Less, Have Less Education Than Other Rural Manufacturing Workers"). Their share of manufacturing wages is only 18 percent, but they account for 22 percent of manufacturing employment. The remaining share of value added is paid to owners of capital (lenders, stockholders, partners, and proprietors) in the form of interest, dividends, and profits; to providers of business services; to corporate officers, whose salaries are not included in the wages and salaries of $111 billion; and to various levels of government in taxes. In addition, some of these dollars may be reinvested as retained earnings. Agricultural- and wood products-based industries have a low ratio of wages to value added compared with the average for all manufacturing (36 percent). This low ratio again reflects the relatively low wages in many of these industries, but it also indicates that many of them are relatively capital intensive. In capital-intensive industries, owners of capital receive a relatively large share of payments to factors of production, and labor receives a smaller share. Manufacturing activities are much more capital intensive

Table 2

Shares of rural and urban manufacturing value added, by industry, 1994

Agricultural- and wood products-based industries are an important component of the rural manufacturing base

Industry	Rural	Urban
	Percent	
Primarily agricultural- and wood products-based	**29.3**	**16.3**
Food processing	13.6	10.1
Lumber and wood products	7.4	1.4
Pulp and paper products	7.2	3.1
Leather and leather products	.6	.2
Tobacco products	.5	1.6
Other manufacturing	**70.7**	**83.7**
Industrial machinery and equipment	8.7	10.4
Chemicals	8.5	12.0
Electrical equipment	7.4	10.1
Transportation equipment	6.5	11.9
Fabricated metal products	6.0	6.0
Rubber and miscellaneous plastics	5.9	4.1
Textile products	5.4	1.2
Primary metal products	6.0	3.9
Apparel	4.0	2.0
Printing and publishing	3.7	8.3
Stone, clay, and glass	3.3	2.3
Furniture	2.3	1.3
Instruments	2.3	6.7
Miscellaneous manufacturing	1.3	1.6
Petroleum and coal products	1.1	1.9
All manufacturing	**100.0**	**100.0**

Source: ERS analysis of U.S. Bureau of the Census, special tabulation of *1994 Annual Survey of Manufactures* data.

than other types of value-added activities, such as wholesale-retail, food service, and recreation activities.

Agricultural- and wood products-based industries are adding to their capital at a rate similar to that of other manufacturing industries. Their share of expenditures for new and used capital (purchases of machinery and equipment, plant additions, updates, or expansions) during 1995 was 22 percent, the same as their share of employment and output. Capital expenditures per worker ($6,800) were also about the same as the average for all manufacturing. Capital expenditures are an indicator of investment, which is triggered by industry growth and expansion, as well as the need to replace worn out and obsolete capital.

Value-Added Industries Moderately Growing

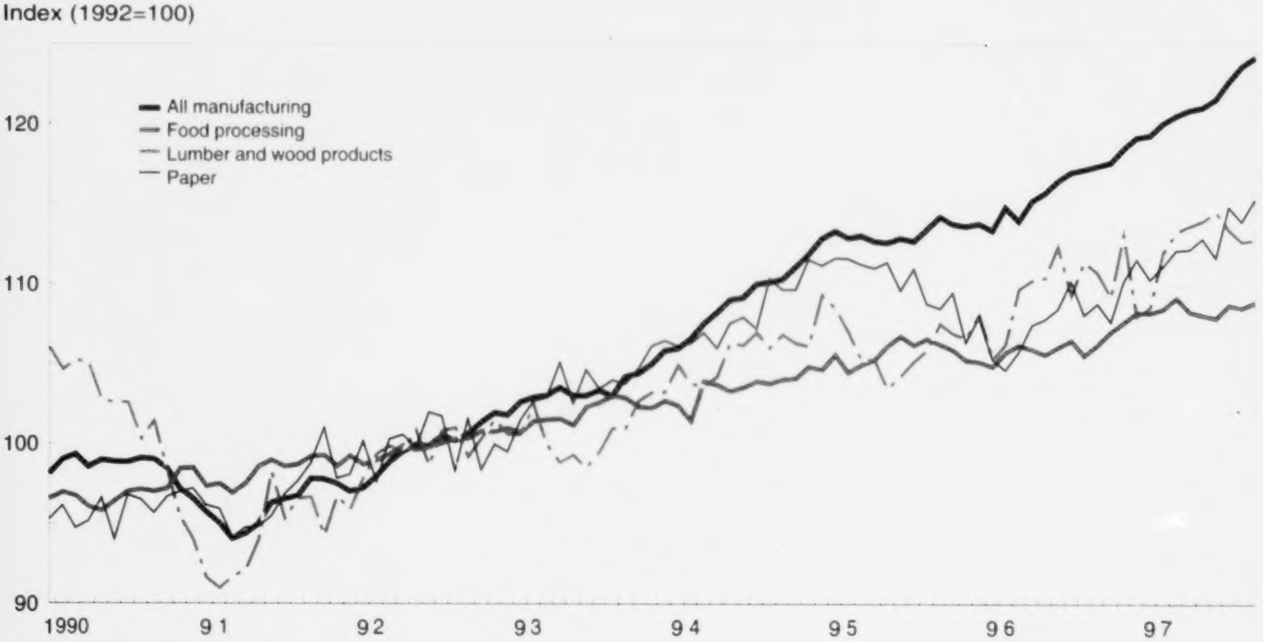
Most agricultural- and wood products-based industries have shared in the robust economic growth enjoyed by the U.S. economy during the mid-1990's, but growth has been more rapid for other types of manufacturing. Food processing has grown at a steady rate through the 1990's (fig. 1). Mid-1997 production is estimated to be about 8 percent above its 1992 level. However, the growth rate of food processing has been only about one-third the rate for all manufacturing. In late 1997, total manufacturing production was about 25 percent above 1992 levels. Industries with the most rapid growth are generally technologically sophisticated machinery and equipment industries, in which the United States has a comparative advantage, such as aircraft, computer, and electrical equipment.

Lumber and wood products is a highly cyclical industry, as can be seen by the steep decline in production during the 1990-91 recession and generally greater fluctuation from month to month compared with food processing and all manufacturing (fig. 1). The lumber and wood products industry is influenced by macroeconomic events through its dependence on the housing market. The industry has also been affected by Federal

Figure 1

Indexes of industrial production: Selected value-added industries and all manufacturing, 1990-97

Recent growth in value-added industries has lagged behind overall manufacturing growth



Source: Federal Reserve System Board of Governors.

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Government environmental and timber harvesting policies as well as developments in world markets. Since 1992, production in the lumber and wood products industry has grown at a rate similar to that of food processing, also considerably slower than the growth rate for all manufacturing.

Paper products production grew at a rate similar to the rate for all manufacturing until it declined in 1995 and 1996 (fig. 1). Since mid-1996, production has again grown at a rate similar to other industries. By mid-1997, production had returned to the peak levels of early 1995. Lack of growth in the printing and publishing industries has dampened the demand for paper products. A trend toward less packaging stimulated by increased environmental awareness may also have weakened demand. Growth in exports, however, may offset these factors.

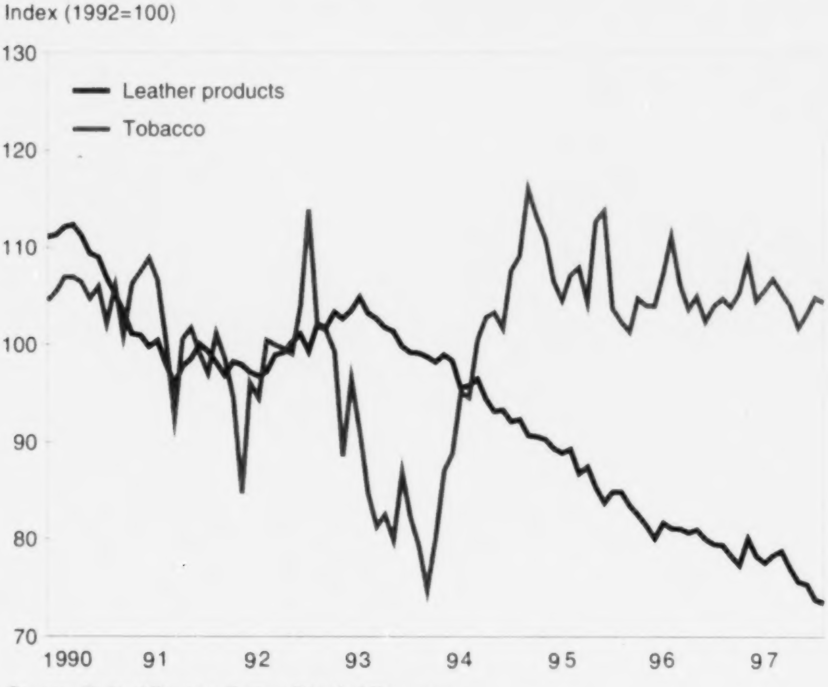
Two other industries that use primarily agricultural materials, leather and tobacco products, have shown flat or declining production in the 1990's (fig. 2). Tobacco products production, of course, has faced slow growth in domestic demand and the prospect of even lower demand as proposals for additional excise taxes and antismoking measures are considered. Leather products output has declined steadily in the face of stiff foreign competition.

Furniture, textiles, and chemicals, industries that use agricultural and wood-based materials for a minor share of inputs, have also grown more slowly than other manufacturing industries (fig. 3). Furniture and textiles grew at a rate similar to that of all manufacturing coming out of the 1990-91 recession. In 1995, however, production flattened for furniture and declined sharply for textiles. Chemical production has grown steadily at about half the rate of growth for all manufacturing. *[Fred Gale, 202-694-5349, fgale@econ.ag.gov]*

Figure 2

Indexes of industrial production: Tobacco and leather products, 1990-97

Production of tobacco and leather products has not grown in the 1990's



Source: Federal Reserve System Board of Governors.

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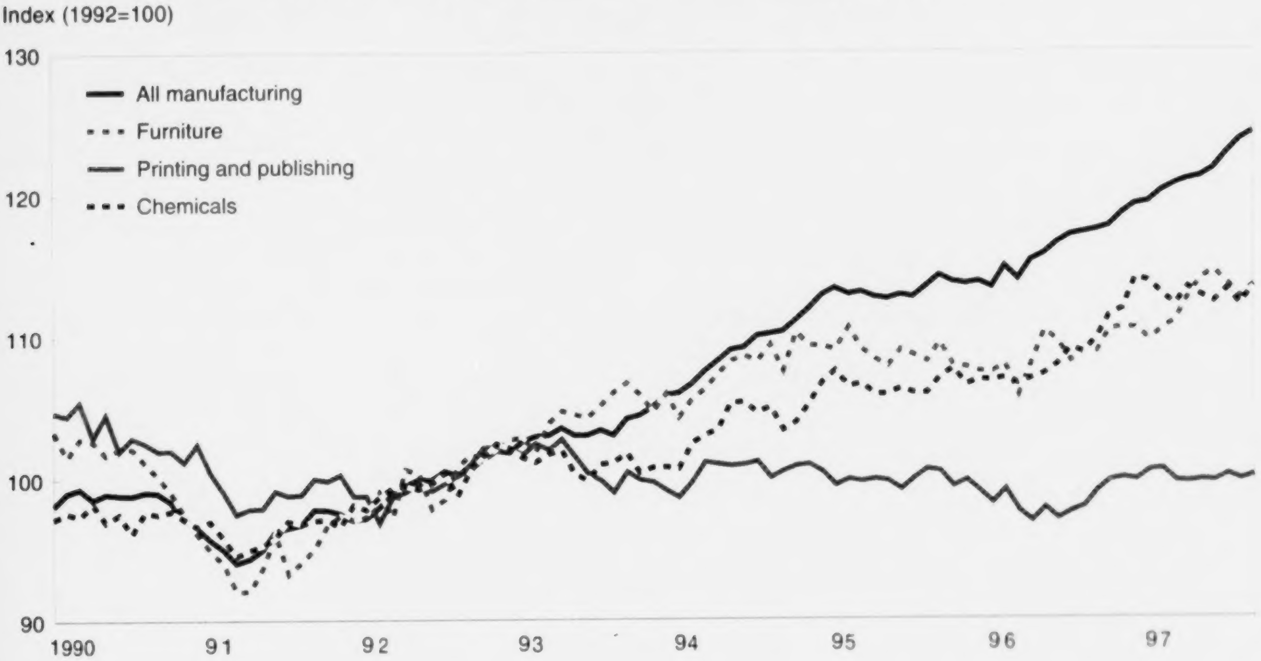
Figure 3

Indexes of industrial production: Furniture, printing and publishing, chemicals, and all manufacturing, 1990-97

Other industries that use agricultural- and forest-based inputs have also lagged in production growth



Source: Federal Reserve System Board of Governors.

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Most Value-Added Manufacturing Increased Its Attachment to Rural Areas During 1989-94

Value-added manufacturing grew faster in nonmetro areas than in the Nation as a whole during 1989-94. Meat processing led employment growth in the farm-related sectors. In each of the forest-related sectors, the number of establishments increased while employment fell. Despite lower employment in some sectors, both farm- and forest-related value-added manufacturing had spread to more nonmetro counties by 1994.

Value-added manufacturing grew much faster in nonmetro areas than it did nationally during 1989-94. Nonmetro value-added manufacturing establishments increased by 11.3 percent and the number of their employees increased 5.9 percent. Nationally, the number of value-added establishments grew 8.1 percent, and the number of employees declined by 1.9 percent (table 1). With the number of value-added establishments growing faster than the number of employees in nonmetro areas (and more establishments nationally despite employment declines), the average employment size of establishments declined. The forest-related value-added establishments accounted for most of this decline in employment size. Farm-related value-added establishments increased their average employment size in nonmetro areas while decreasing their employment size nationally.

Value-added industries contributed to rural employment growth more than other manufacturers during 1989-94. While other nonmetro manufacturing increased the number of establishments faster than nonmetro value-added manufacturing did, the number of employees grew much faster in nonmetro value-added manufacturing than in other nonmetro manufacturing. Farm-related industries accounted for much of the gain. The following discussion delves into more detailed industrial trends to help explain the overall growth and identify stronger and weaker value-added sectors in terms of national employment trends and their attachment to nonmetro areas.

Table 1

Total, manufacturing, and value-added establishments and employees

Farm- and forest-related manufacturing are growing faster in nonmetro areas than elsewhere and are more concentrated in rural areas than is other manufacturing

	Establishments		Employees	
Industry	1994	Change, 1989-94	1994	Change, 1989-94
	Number	Percent	Number	Percent
All industries	6,507,713	6.6	96,629,396	5.6
Manufacturing	375,249	6.2	16,813,485	-8.1
Farm and forest value-added	110,726	8.1	4,030,354	-1.9
Farm value-added	22,357	3.6	1,728,212	-1.1
Forest value-added	88,369	10.7	2,302,142	-2.5
All nonmetro industries	1,252,490	7.9	14,719,655	11.1
Manufacturing	80,784	13.3	3,982,491	1.2
Farm and forest value-added	34,114	11.3	1,346,355	5.9
Farm value-added	6,167	4.4	572,978	8.5
Forest value-added	27,947	15.5	773,377	3.5
	Percent	Percentage points	Percent	Percentage points
Share of all industries in nonmetro areas	19.2	.2	15.2	.8
Manufacturing	21.5	1.4	23.7	2.2
Farm and forest value-added	30.8	1.1	33.4	2.4
Farm value-added	27.6	.2	33.2	2.9
Forest value-added	31.6	1.3	33.6	2.0

Source: Calculated by ERS using data from County Business Patterns files enhanced by Claritas, Inc.

Meat Products Manufacturing Led Employment Growth Among Farm Value-Added Industries

Within farm-related value-added manufacturing, the meat-products sector (meat packing, sausages and other prepared meats, and poultry slaughtering and processing) employed the largest number of workers and had much faster growth in employment than the other sectors (table 2). All three industries in the meat-products sector added employees, but poultry slaughtering and processing employment grew four to six times as fast as in the other industries (app. table 3). Continuing consumer demand for lower cholesterol meats and the poultry industry's introduction of an increasing array of red-meat substitutes (for example, turkey bacon and burgers and chicken bologna) have fueled these employment trends.

The only other farm-related sector that increased employment by even 5 percent over the 5-year period was grain mills. This sector is a varied group of industries from flour, rice, or corn milling to breakfast cereals and flour mixes and doughs to pet food and other animal feeds. The prepared flour mixes and doughs industry increased employment 43 percent, accounting for most of this sector's growth (app. table 3). Consumer demand for more processed, quickly preparable foods undoubtedly has fueled that increase.

Table 2

Farm-related value-added manufacturing establishments and employees

Meat products is the fastest growing employer and the most rural of the farm-related manufacturers

	Establishments		Employees	
Industrial sectors	1994	Change, 1989-94	1994	Change, 1989-94
	Number	Percent	Number	Percent
Meat products	3,136	2.9	420,218	17.0
Dairy products	1,941	-12.1	134,702	-4.6
Canned, frozen, and preserved fruits, vegetables, and food specialities	2,003	6.3	187,624	.7
Grain mill products	2,650	5.3	107,936	5.2
Bakery products	3,346	13.0	219,559	1.2
Sugar and confectionery products	1,141	3.5	88,904	-2.7
Fats and oils	511	-9.1	25,940	-11.1
Beverages	2,084	.1	139,273	-9.1
Selected miscellaneous food preparations	2,306	16.4	103,031	1.4
Tobacco products	117	-16.4	34,695	-23.9
Selected cotton or wool fabric or yarn manufacturing	1,310	13.2	174,720	-14.1
Leather products and leather and sheep-lined clothing	1,812	-6.8	91,610	-21.7
Shares of industry sector in nonmetro counties	Percent	Percentage points	Percent	Percentage points
Meat products	39.7	.9	52.3	3.4
Dairy products	33.5	-.3	27.8	1.1
Canned, frozen, and preserved fruits, vegetables, and food specialities	25.8	1.5	32.8	3.5
Grain mill products	46.6	-.9	34.5	2.6
Bakery products	10.2	.2	12.8	1.1
Sugar and confectionery products	20.9	1.1	21.1	1.9
Fats and oils	36.4	2.9	33.5	3.5
Beverages	20.5	-.4	11.8	-.4
Selected miscellaneous food preparations	16.5	1.3	13.1	1.3
Tobacco products	18.8	.2	12.8	2.6
Selected cotton or wool fabric or yarn manufacturing	33.3	.4	51.9	5.1
Leather products and leather and sheep-lined clothing	26.9	2.2	39.7	1.2

Source: Calculated by ERS using data from County Business Patterns files enhanced by Claritas, Inc.

On the negative side, manufacturers of fats and oils, tobacco products, selected cotton and wool fabrics and yarns, and leather products each shed at least 10 percent of their workers during 1989-94. The industries within fabric and yarn manufacturing that account for the sector's decline are broadwoven cotton fabric mills and yarn spinning mills (app. table 3). While they still are the two dominant employers among the five fabric and yarn industries we analyzed, they each shed a quarter of their workers during the 5 years. Despite employment downsizing, the broadwoven cotton fabric mills added establishments during the period. Increases in mechanization, computerization, and product specialization may have played a role in decreasing the need for workers while providing opportunities for new establishments.

Nonmetro Areas Increased Their Shares of Farm-Related Value-Added Employment

Nonmetro areas maintained or increased their share of jobs in almost all farm-related value-added manufacturing sectors, even among sectors with large increases or declines in employment. Nonmetro areas gained 3.4 percentage points in the growing meat products sector, pushing their share of the industry to 52.3 percent (table 2). Their share of selected cotton and wool fabric and yarn manufacturing also increased to over half, while employment in that sector declined. Nonmetro areas also gained in their shares of fats and oils and tobacco manufacturing employment as those sectors shrank. The only sector in which the nonmetro share of employment declined was in beverage manufacturing and that was by less than 1 percentage point. (Nonmetro shares of establishments and employees at the detailed industry level are shown in app. table 4.)

Variation in the nonmetro shares of sectors broadly reflect the closeness of each industry's ties to retail market or inputs. For example, nonmetro areas contain low shares of bakery, beverages, and miscellaneous food preparations industries because they are tightly tied to consumer demand, and most consumers are in urban areas. Bakery-products manufacturers are located near population centers to minimize transportation time for their perishable products. Beverage manufacturing adds much of its weight, from water and containers, at the manufacturing site, making it more economical to locate close to large retail markets. About a third of the employment in the selected miscellaneous food preparations we analyzed is in potato and corn chip and similar snack manufacturing, another set of products that are relatively perishable and fragile, also making retail markets an important establishment-siting factor.

Industries with processing that reduces the weight of inputs tend to locate closer to inputs than to the retail market. The meat-packing industry is a prime example. With the production process shifted to boxed beef (cuts of beef and frozen hamburger patties and rolls) rather than whole carcasses, location closer to cattle and hog producers has become more attractive. Major shifts in the ownership of meat packing to a few major firms and from unionized to nonunionized labor have also affected the industry's location, making nonmetro areas more attractive. (See the June 1994 issue of *Rural Development Perspectives* for articles on the red-meat and poultry industries and their changing labor forces.)

Selected fabric and yarn manufacturers are also concentrated in nonmetro areas. Their nonmetro locations are at least partly due to lower land prices for large factories, their production of intermediate products that do not go directly into the retail market, and the legacy of the movement of much of the Northeast textile and apparel industries into lower wage, nonunionized, smaller southern communities after the turn of the century.

All Forest-Related Manufacturing Sectors Added Establishments, but Shed Employees

Trends for forest-related value-added manufacturers were different than those of the farm-related manufacturers during 1989-94. All five of the forest-related sectors we analyzed (lumber and wood products, paper and allied products, selected wood furniture, selected printing and publishing, and selected chemicals and allied products) added establishments, but shed employees during the 5-year period (table 3). With falling employment

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and increasing numbers of establishments, the average number of employees per establishment declined in all the sectors.

The selected chemicals and allied products industries we analyzed are cellulosic man-made fibers and gum and wood chemicals. The large decline in employment in this sector was in the cellulosic man-made fibers industry (app. table 5). The gum and wood chemicals industry added a few employees during the period. Employment declines in the other four, much larger, sectors were more modest, in the 2- to 5-percent range.

Among the industries in the lumber and wood products sector, only structural wood members and mobile home manufacturers had sizable growth in employment, 19 and 13 percent (app. table 5). Hardwood dimension and flooring mills and wood kitchen cabinet manufacturers modestly increased employment, 3 and 0.5 percent. All of the other industries in this sector shed employees, with most dropping at least 10 percent of their employees during the period. While the mobile home industry gained employees, it lost establishments, increasing its average employment per establishment. Several other lumber and wood-products industries lost establishments, but they were also shedding employees, so their average establishment size did not change much.

The paper and allied products sector also includes a wide array of industries (app. table 5). Eight of its industries accounted for the sector's overall loss of employees. Although paper mills did not have the highest percentage loss of employees, they are by far the largest industry in the paper and allied products sector and accounted for a large share of the sector's employment loss. Setup paperboard boxes (such as the boxes, some with metal corners, used to store photographs or documents) and stationery, tablets, and related products lost over 20 percent of their workers, but those two industries are relatively small. The paper industry with the fastest employment growth was coated and laminated packaging paper and plastic films. Employment in this industry increased 8 percent, and the number of establishments increased 51 percent. It is a small industry, however, and whether the packaging paper or the plastic film is generating the growth is not clear.

Table 3

Forest-related value-added manufacturing establishments and employees by sector

All sectors added establishments while shedding workers; nonmetro areas increased their shares of both establishments and workers

Industrial sectors	Establishments 1994	Establishments Change, 1989-94	Employees 1994	Employees Change, 1989-94
	Number	Percent	Number	Percent
Lumber and wood products, except furniture	37,389	13.3	694,473	-2.7
Paper and allied products	6,467	2.8	622,410	-1.5
Selected wood furniture	6,502	8.3	277,008	-5.1
Selected printing and publishing industries	37,919	10.0	698,895	-1.6
Selected chemicals and allied products	92	9.5	9,356	-29.1
Shares of industry sector in nonmetro counties				
	Percent	Percentage points	Percent	Percentage points
Lumber and wood products, except furniture	55.5	.8	55.7	3.3
Paper and allied products	16.3	.8	27.8	1.0
Selected wood furniture	22.3	2.4	38.0	3.1
Selected printing, publishing, and allied industries	12.3	.8	14.8	1.1
Selected chemicals and allied products	53.3	6.8	45.1	17.2

Source: Calculated by ERS using data from County Business Patterns files enhanced by Claritas, Inc.

Four of the five wood furniture manufacturing industries we analyzed shed workers during 1989-94. Only the upholstered wood furniture industry gained employees, but by a meager 2 percent. Wood office furniture manufacturing shed 25 percent of its workers and was the only industry to lose establishments. Wood television, radio, phonograph, and sewing machine cabinets manufacturing lowered employment by 13 percent but increased the number of establishments by 42 percent, suggesting that smaller, more specialized establishments are needed to respond to the unique demands of buyers in this niche market.

Of the four printing and publishing industries we selected for analysis, only book printing increased employment. The commercial printing industry dominates this group and had flat employment, dropping only 0.4 percent. The two industries that accounted for the group's overall employment decline are manifold business forms and blankbooks, looseleaf binders, and devices. Those two industries added establishments as they lost employees. They may be specializing in response to computer-generated forms and computerized information storage cutting into the demand for their products.

Nonmetro Areas Increased Their Shares of Forest-Related Value-Added Employment

Nonmetro areas increased their shares of both establishments and employees in all five forest-related manufacturing sectors. Nonmetro areas increased their share of lumber and wood products to over 50 percent of employees and 42 percent of establishments (table 3). In the selected chemical industries, the nonmetro share of employees jumped to 45 percent as most of the employment losses were in metro areas. The nonmetro share of this sector's establishments increased to 53 percent.

Some forest-related value-added manufacturing industries are closely tied to commercial users who are concentrated in larger markets. For example, nonmetro areas have low shares of the selected printing and publishing sector because commercial printing does most of its work on a contract basis for businesses. Other industries, such as lumber and furniture, are much more likely to be located in nonmetro areas, closer to raw materials, because they reduce the weight of inputs and sell the same products to a wide range of businesses. For example, the lumber industry sells dimension lumber to construction firms as well as to exporters and retail lumberyards, and the furniture industry sells the same sofa or chair to numerous furniture retailers. (See app. table 6 for nonmetro shares of establishments and employees at the detailed industry level.)

Most Farm- and Forest-Related Industries Spread to More Counties

Along with knowledge of the growth or decline in the numbers of farm- and forest-related manufacturing establishments and employees, communities considering these industries as possible development options need to know whether value-added industries tend to stay in one place or spread to other places. Table 4 shows the net change in the number of counties with at least one establishment in the industrial sector. Among the farm-related sectors, dairy products, fats and oils, beverages, and tobacco products became more geographically concentrated during 1989-94. Tobacco-products manufacturing was already quite concentrated in 1989 and shrank to locations in only 74 counties by 1994. The other eight sectors spread out to more counties. Even the selected fabric and yarn manufacturers and the leather-goods manufacturers were in more counties in 1994 than they had been in 1989, despite their sizable employment declines.

Nonmetro counties experienced geographic contraction in the same four farm-related sectors as all counties did. In most of the geographically expanding industries, nonmetro counties disproportionately gained, capturing a larger share of the counties with at least one establishment in 1994 than they had held in 1989.

Within forest-related manufacturing, all five sectors were in more counties in 1994 than in 1989. Nearly 80 percent of all 3,141 counties and 76 percent of the 2,305 nonmetro counties have at least one firm involved in lumber and wood-products manufacturing. The selected wood furniture manufacturers expanded to more counties by the largest percentage, nationally and among nonmetro counties. All sectors geographically expanded more rapidly in nonmetro counties, increasing the nonmetro shares of all counties with at least one forest-related manufacturer.

Implications for Rural Development

The trends in farm- and forest-related value-added manufacturing during 1989-94 generally favored rural areas. In nearly all the industries we analyzed, nonmetro areas increased their shares of establishments and employees, even in most of the industries with declining employment. Most of the farm-related and all of the forest-related sectors also spread to more counties by 1994, tending to favor rural locations.

Some rural communities lost establishments and jobs in these industries as firms closed, relocated, or downsized. The net gains in establishments and counties containing these industries, however, suggest that more rural communities have had the ability to start new or attract relocating farm- and forest-related manufacturing firms. Whether a specific rural community will find one or more of the value-added industries beneficial to its economic development depends on many factors. Among them are whether the community's location within the inputs-versus-market spectrum matches the industry's locational

Table 4

Counties with at least one establishment in the farm- or forest-related value-added manufacturing sectors

Nearly all farm- and forest-related value-added manufacturing sectors expanded to more nonmetro counties between 1989 and 1994

	Total		Nonmetro		Nonmetro share of counties with at least one establishment	
Industrial sectors	1994	Change, 1989-94	1994	Change, 1989-94	1994	Change, 1989-94
	Number	Percent	Number	Percent	Percent	Percentage points
Farm-related sectors:						
Meat products	1,324	5.9	801	6.5	60.5	0.3
Dairy products	762	-8.1	350	-9.3	45.9	-.6
Canned, frozen, and preserved fruits, vegetables, and food specialities	703	8.3	317	13.6	45.1	2.1
Grain mill products	1,215	4.8	729	3.7	60.0	-.7
Bakery products	755	8.5	271	17.8	35.9	2.8
Sugar and confectionery products	497	5.3	186	11.4	37.4	2.0
Fats and oils	349	-5.2	162	-2.4	46.4	1.3
Beverages	704	-4.9	293	-9.0	41.6	-1.9
Selected miscellaneous food preparations	716	13.8	287	21.6	40.1	2.6
Tobacco products	74	-12.9	19	-9.5	25.7	1.0
Selected cotton or wool fabric or yarn manufacturing	502	18.4	221	20.8	44.0	.9
Leather products and leather and sheep-lined clothing	633	5.1	315	5.0	49.8	-.1
Forest-related sectors:						
Lumber and wood products, except furniture	2,577	3.6	1,765	4.3	68.5	.4
Paper and allied products	1,146	3.2	543	4.2	47.4	.4
Selected wood furniture	1,262	8.2	636	11.8	50.4	1.6
Selected printing and publishing	2,205	4.9	1,410	6.4	63.9	.9
Selected chemicals and allied products	72	1.4	37	12.1	51.4	4.9

Source: Calculated by ERS using data from County Business Patterns files enhanced by Claritas, Inc.

needs, whether the community must offer tax breaks or industrial park investments to attract the industry, whether the industry pays wages as high as or higher than other industries the community could attract, and whether the industry can find sufficient local workers or must recruit from outside the community. *[Linda M. Ghelfi wrote this article, but has since moved to research on food assistance. Please contact Fred Gale, 202-694-5349, fgale@econ.ag.gov, if you have questions regarding value-added industries.]*

Value-Added Workers Earn Less, Have Less Education Than Other Rural Manufacturing Workers

Value-added industries employed one-third of all rural manufacturing workers in 1996. Value-added workers generally have lower occupational status and less education than other manufacturing workers, which is reflected in their lower average weekly earnings. Wages in value-added industries have grown only slightly overall during the 1990's, but more rapidly for women.

Approximately 1.5 million workers, 33 percent of the rural manufacturing wage and salary work force, were employed in value-added industries in 1996, according to data from the Current Population Survey (CPS). Manufacturing provides 18 percent of all rural jobs. Due to limitations in the CPS, these industries are delineated according to a broader definition of value-added than the one used elsewhere in this issue (see "Definitions" appendix). Value-added workers form a particularly large share of the manufacturing work force in the South, where lumber, furniture, and paper are key industries throughout much of the region. These industries are far less important to the Midwestern rural economy, and value-added workers are a smaller share of the work force there. Since value-added industries tend to use raw timber and agricultural products as inputs, their employment share in rural areas is larger than in urban areas. Despite the pressures of an increasingly competitive international market and the introduction of labor-saving technology, value-added industries' share of total rural manufacturing employment has remained steady since 1990.

Value-Added Workers Have Less Education, Lower Occupational Status

Rural value-added industries rely more on less-educated, male, and Hispanic workers than do other manufacturing industries. Value-added manufacturing workers are less likely to be women, for example, but more likely to be Hispanic (table 1). Two-thirds of rural Hispanics employed in manufacturing work in value-added industries, compared with one-third of all rural manufacturing workers. Rural value-added manufacturers also require

Table 1

Selected characteristics of rural value-added and other manufacturing workers

Value-added industry workers are less educated and more likely to be male and Hispanic than other manufacturing workers

Category	Value-added	Other manufacturing
	Percent	
Men	72	64
Women	28	36
Age:		
16-24	14	14
25-60	81	82
Over 60	5	4
Black	14	12
Hispanic[1]	10	3
White	85	87
Less than high school	24	15
High school[2]	71	75
College	5	10
Managerial, professional, technical[3]	16	25
Craft	23	20
Other blue collar, service	61	55

[1] Hispanics may be of any race. [2] Includes workers who attended college but did not complete a 4-year program. [3] Includes sales, clerical, and administrative support workers.

Source: Calculated by ERS using data from the 1996 Current Population Survey.

relatively fewer managerial, professional, and technical workers (14 percent vs. 25 percent in other manufacturing). Accordingly, value-added workers have lower average levels of educational attainment. They are less likely to have a high school diploma or college degree than other rural manufacturing workers. The same patterns appear to hold for metro value-added workers as well, indicating that relatively low education and occupational attainment is endemic to value-added industries, not primarily a result of the location of high-skill jobs in cities.

Value-Added Earnings Lower Due to Work Force Composition

In keeping with lower levels of education and occupational status, value-added wage and salary workers in rural areas earn less than other manufacturing workers. However, they earn much more than service workers (table 2). Weekly earnings for value-added workers in 1996 averaged $451. Other manufacturing workers earned 7 percent more ($483), while service workers earned about 14 percent less ($388). Most of the difference between value-added and other manufacturing pay can be traced to the educational composition of the two work forces. College graduates 25 years and older, for example, earn about the same amount in both kinds of manufacturing—$818 in value-added compared with $809 in other manufacturing.

Differences in weekly earnings between value-added and service workers, on the other hand, are due largely to the greater incidence of part-time work among service workers. Most rural value-added workers (95 percent), like other manufacturing workers, are employed full-time, compared with just 72 percent of rural workers in service industries. When full-time workers only are compared, the 18-percent wage gap in favor of value-added workers reverses to a 4-percent gap in favor of service workers. The change is less surprising than it first appears. The service sector is highly diverse. Many of its workers are quite well educated and enjoy high-status occupations compared with manufacturing workers. Other jobs typically found in the service sector, such as restaurant and sales clerk jobs, require even less skill than those in value-added manufacturing.

Rural value-added workers earn about 20 percent less than their urban counterparts. Unlike the comparison with other rural workers, the difference is attributable to greater monetary rewards for the same level of education, as well as to higher urban education and skill levels. But the returns to additional education are also larger in urban areas. For example, value-added workers with less than a high school diploma earn about the same amount in urban and rural labor markets. High school graduates earn about 10 percent more in urban labor markets, however, while college graduates earn 15 percent more.

Table 2

Average weekly earnings of value-added and other selected workers, 1996

Differences in educational composition explain much of the difference between rural value-added and other manufacturing workers

Category	Rural value-added	Other rural manufacturing	Rural services	Urban value-added
	Dollars			
All wage and salary workers	451	483	388	539
Less than high school	379	375	265	368
High school[1]	485	495	393	534
College	818	809	630	944
Full-time	462	498	479	556

[1] Includes workers who attended college but did not complete a 4-year program.

Source: Calculated by ERS using data from the 1996 Current Population Survey.

Comparisons using only average demographic or earnings statistics for valued-added workers ignore the diversity within the value-added industry group (fig. 1). Paper industry workers, for example, earn well above the average for all manufacturing industries ($559), and have relatively well-educated workers, but food processing employees are less educated and earn considerably less than the average ($408). Furniture and lumber industry wages are closer to the manufacturing average.

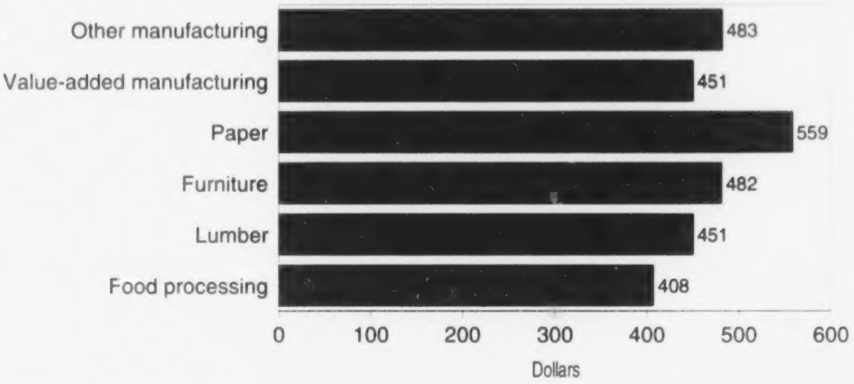
Value-Added Earnings Grew Rapidly for Women in the 1990's

The rural value-added work force has changed during the 1990's, but very slowly. Relatively more workers had a high school diploma by 1996. Also, the current concentration of Hispanics reflects an influx of these workers since the beginning of the decade. Earnings in rural value-added industries changed little during the 1990's, registering 1.5 percent real growth between 1990 and 1996 (table 3). This rate was similar, however, to the 1.8 percent change for the rural work force as a whole. Men and women workers had sharply different experiences over the 1990-96 period, as men's earnings remained essentially unchanged while women's earnings rose 9 percent. Women's rapid rise partly reflects their movement up the career ladder to better paying jobs, as well as faster earnings growth in many nonproduction-related occupations, where women are disproportionately employed. Earnings similarly diverged between high-status white collar workers, whose earnings fell, and many workers in blue collar and support occupations, where earnings rose moderately. *[Robert Gibbs, 202-694-5423, rgibbs@econ.ag.gov]*

Figure 1

Average weekly earnings by value-added industry, 1996

Paper industry workers earn 37 percent more than those in food processing



Source: Calculated by ERS using data from the 1996 Current Population Survey.

Table 3

Change in average weekly earnings for rural value-added workers, 1990-96

Women's earnings rose much faster than men's, as was true for the overall rural work force

Category	1990	1996	Change, 1990-96
	1996 dollars		Percent
All wage and salary workers	444	451	1.5
Men	488	485	-.7
Women	333	363	9.1
Black	324	342	5.6
Hispanic[1]	312	330	5.8
White	469	470	.2
Less than high school	372	379	1.9
High school[2]	482	485	.6
College	800	818	2.2
Managerial, professional	832	788	-5.4
Technical, sales, clerical[3]	455	453	-.4
Craft	495	492	-.7
Other blue collar, service	380	396	4.3

[1] Hispanics may be of any race. [2] Includes workers who attended college but did not complete a 4-year program. [3] Includes clerical, sales, and administrative support occupations.

Source: Calculated by ERS using data from the 1996 Current Population Survey.

Value-Added Manufacturing Has Strong Local Linkages

The local economic linkages of value-added manufacturing plants are relatively strong, due to their purchases of materials from local farms and businesses.

In planning a local value-added development strategy, one must understand the location decisions and purchasing patterns of various types of processors. Value-added industries tend to have strong backward linkages with local suppliers. This is a key component of the value-added development strategy. A manufacturing plant that buys its materials locally provides existing businesses and farms with a nearby customer and may attract new businesses to locate in the community. By adding value to locally produced commodities, plants that purchase locally become more closely integrated into the local economy and have a greater local impact than a plant that has materials shipped in from elsewhere.

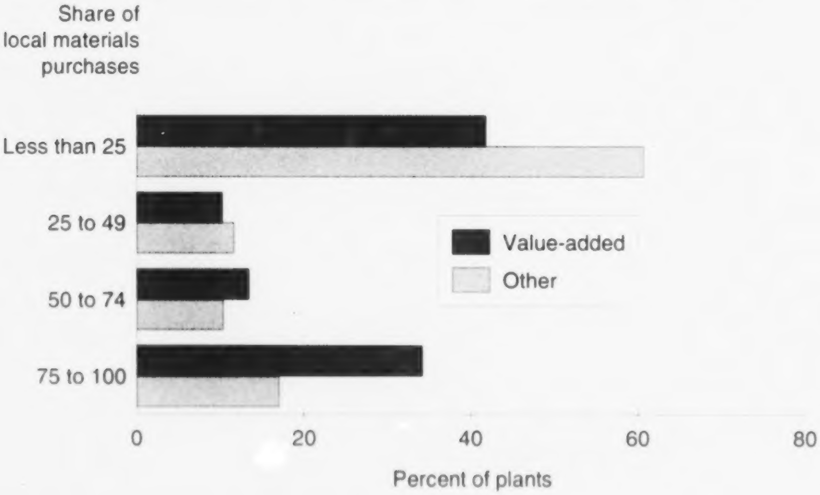
Analysis of the ERS Rural Manufacturing Survey (see "Data Sources" appendix) shows that, on average, nonmetro plants in value-added industries purchase 45 percent of their materials and inputs locally (within a 1-hour drive), while plants in other industries reported an average of 28 percent local purchases. About 48 percent of nonmetro value-added plants buy at least half of their materials locally, compared with only 28 percent of other plants. Local purchases are a key ingredient for a successful value-added rural development strategy.

Value-added plants vary considerably in their propensity to purchase inputs locally. Forty-two percent of nonmetro value-added plants purchase less than 25 percent of materials locally, while about 35 percent purchase 75 percent or more of materials locally (fig.1). Factors that affect local purchasing include the type of industry, size, and type of plant. Sawmill operations locally buy an average of 70 percent of their inputs. The average is 50 percent for plants that make wood containers, and about 30 percent for millwork-plywood and for wood buildings-mobile home manufacturers. Pulp and paper mills tend to do less local purchasing than other types of wood products industries, locally buying about 25 percent of materials. Food processors' average local purchasing varies between 40 and 60 percent for most industries, but is as low as 8 percent for bakery products and

Figure 1

Local purchasing by nonmetro value-added and other manufacturing plants

Plants in value-added industries are more likely to purchase materials locally



Source: ERS analysis of 1996 Rural Manufacturing Survey.

as high as 64 percent for fats and oils. As might be expected, industries that process raw materials (logs or agricultural commodities) are the most likely to purchase local materials (fig.2).

Local Purchases Increase Local Impact

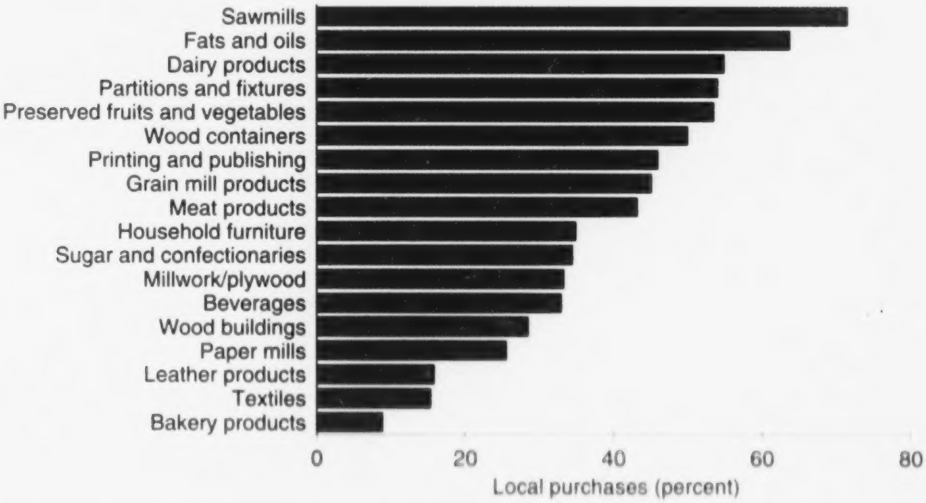
While the economic impact of a manufacturing plant is often measured by the number of jobs it provides, considering its local linkages can give a broader assessment of a plant's impact. Local purchases of materials are much larger than salaries and wages for many food processing, logging, and sawmill operations. For example, ERS estimates that an average meat-packing plant with 370 jobs spent $7.6 million on salaries and wages and $32.5 million on materials purchased locally in 1995 (table 1). In this case, the primary stimulus to the local economy provided by the plant may be its purchases of raw materials from local businesses and farms, rather than the jobs directly created by the plant. In contrast, an average cotton fabric mill with 221 jobs spent about $4.3 million on salaries and wages, but only $1.5 million on local materials purchases. Meat-packing plants appear to have a much more extensive impact on the local economy through the strength of their backward linkages than do cotton fabric mills. The average meat-packing plant spent $108,500 per job on salaries, wages, and materials, compared with only $26,000 per job spent by the average cotton fabric mill.

Comparison of value-added industries shows that food processing and primary wood products industries have the highest spending per job, because they are materials-intensive and locally purchase a large share of their materials. The highest spending per job is by fats and oils processors, manufacturers of dairy products, red-meat packers, grain mills, logging operations, and sawmills. Red-meat-packing plants spend twice as much as poultry-processing plants on a per job basis because of their higher wages and greater expenditures on materials. Labor-intensive industries, such as textiles and leather products, have the lowest spending per job. Spending per job in other value-added industries is comparable to levels in other manufacturing industries, where the average generally ranges between $40,000 and $60,000 per job. Note that this measure excludes some important spending that contributes to the local economy, such as tax payments, purchases of business services, and construction expenditures.

Figure 2

Average local purchases by nonmetro value-added industry

Industries that process raw agricultural materials and logs are most likely to purchase local materials



Source: ERS analysis of 1996 Rural Manufacturing Survey.

Plant Size and Local Ownership Can Affect Local Purchasing

Other factors can influence the propensity to purchase locally. Some economic development experts recommend a strategy based on smaller, locally owned plants because they are believed to have stronger local linkages. Larger plants tend to buy a smaller proportion of their materials locally because their large input requirements may not be met by local suppliers and larger plants may be more aware of nonlocal sources. This is the case for sawmills, where small operations (less than 100 employees) locally purchase an average of 74 percent of materials, and large operations (over 500 employees) locally purchase only 28 percent. Many value-added industries do not follow this pattern. For example, among grain mills, local purchasing averages between 50 and 60 percent for plants of all sizes. For millwork/plywood mills, the largest plants have higher average local purchasing propensity than plants of other sizes. Even in industries where larger

Table 1

Estimated local expenditures by nonmetro value-added manufacturing plants, 1995

Local purchasing increases the local impact by raising local spending per job

Industry	SIC[1]	Local purchases[2]	Salaries and wages	Jobs	Local spending per job
		Million dollars		Number	Dollars
Meat packing	2011	32.5	7.6	370	108,500
Poultry processing	2015	15.4	7.0	467	48,100
Dairy products	202	12.7	1.9	91	160,600
Preserved fruits and vegetables	203	12.8	3.8	229	72,500
Grain mill products	204	4.4	1.2	53	105,200
Bakery products	205	.6	4.6	208	24,900
Sugar and confectionery	206	10.1	4.3	236	60,900
Fats and oils	207	25.7	2.1	86	323,600
Beverages	208	3.4	2.1	88	62,700
Broadwoven fabric, cotton	221	1.5	4.3	221	26,000
Yarn and thread mills	228	5.2	5.3	263	39,600
Logging	241	6.9	1.6	80	105,600
Sawmills and planing mills	242	4.7	1.2	63	94,100
Millwork, plywood, and structural members	243	2.1	1.5	78	46,400
Wood containers	244	.6	.6	46	27,500
Wood buildings and mobile homes	245	2.0	2.2	93	45,300
Wood household furniture	251	2.6	2.7	148	36,300
Other furniture	252-9	6.2	2.0	92	89,400
Pulp and paper mills	261-3	9.0	11.3	326	62,200
Paperboard containers and boxes	265	3.2	2.2	91	59,000
Miscellaneous converted paper products	267	1.4	2.8	122	34,200
Publishing/printing books, etc.	272-4	1.7	4.7	179	35,900
Commercial printing	275	.9	1.2	46	45,400
Other printing	276-9	2.6	7.1	294	33,100
Leather products	313-9	1.5	3.6	201	25,300

[1] Standard Industrial Classification code. [2] Average materials expenditures multiplied by average percent local purchases.

Source: Estimated by ERS. All data are for 1995, not adjusted for inflation. Local purchasing propensity, production worker wages, and average number of jobs are from 1996 Rural Manufacturing Survey. Materials expenditures and nonproduction worker salaries are from 1995 Annual Survey of Manufactures.

plants locally buy a smaller proportion of their inputs, the larger volume of purchases by large plants means that large plants still locally spend more dollars than smaller plants.

In wood products and furniture industries, branch plants of larger firms tend to purchase fewer local inputs than firms that have only one plant. Textile plants that use just-in-time manufacturing techniques tend to purchase a higher percentage of local materials. Plants also tend to buy more locally when a large number of related firms in the same industry are located nearby. These factors should also be considered when forming a value-added development strategy. *[Fred Gale, 202-694-5349, fgale@econ.ag.gov]*

Investment Patterns Indicate Modest Expansion by Value-Added Industries

Value-added manufacturing industries require significant capital investment each year to maintain production capacity. In the mid-1990's, value-added manufacturers expanded their stock of plant and equipment, but food and tobacco manufacturers are the only value-added industries that expanded their productive capacity faster than nonvalue-added manufacturing industries.

The stock of capital per production worker in major value-added industries averaged $103,000 in 1994. This is slightly above the average for other industries, but masks the diversity in capital intensity among value-added industries. Food processing, tobacco, and paper products are among the most capital-intensive manufacturing industries. The paper industry, in particular, is highly capital intensive, averaging $199,000 per worker. Other value-added industries, including lumber and wood products, leather, and furniture manufacturers, use considerably less capital per worker.

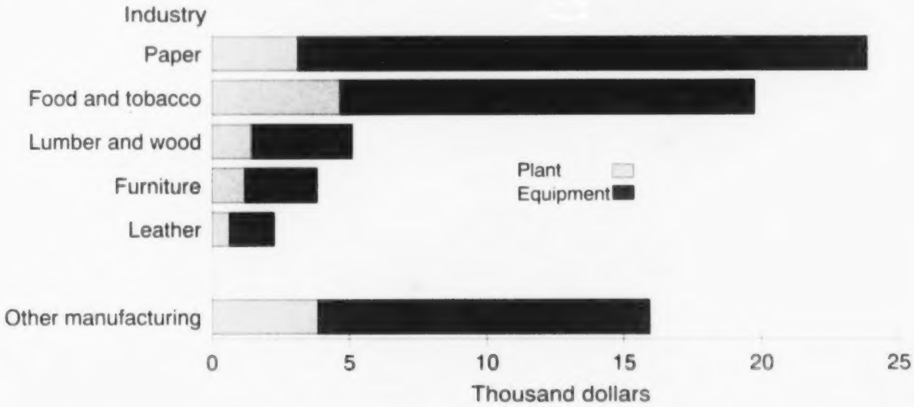
New investment is needed each year to replace depreciated capital and to expand capacity by building new facilities, adding to existing facilities, or upgrading plant and equipment (see box "Capital Investment Is an Indicator of Growth"). Levels of new investment per worker in 1994 (the most recent year for which detailed data are available) again show the diversity among value-added industries in capital intensity. The paper products and food and tobacco industries (food and tobacco are combined as a single industry in these statistics) invested roughly $20,000 or more per production worker (fig. 1). Investment by lumber and wood products ($5,118 per worker) and leather products manufacturers ($2,286 per worker) was more modest.

Equipment accounts for much of the investment in these industries, and the type of equipment employed by value-added industries reflects the diversity of production processes among these industries. For example, 28.5 percent of equipment investment in value-added industries is for specialized industrial machinery (machinery designed explicitly for the industry that uses it, table 1). For other manufacturing, only 6 percent of new investment is in equipment specialized for their industry, and these industries have the largest share of their new equipment investment devoted to office computing equipment. About 22 percent of new investment in other manufacturing is for office computing equipment, whereas value-added industries have devoted half of this amount on such investments. This is a reflection of the workforce in value-added manufacturing, which includes a large share of less skilled production line workers, and relatively few professional and technical workers (see "Value-Added Workers Earn Less, Have Less Education Than Other Rural Manufacturing Workers"). Professional and technical workers tend to work with computers and office equipment, while production line workers tend to work with industrial machinery and equipment.

Figure 1

Annual capital expenditures per production worker by industry, 1994

Paper, food, and tobacco manufacturers have the greatest capital requirements per worker



Source: ERS analysis of Bureau of Economic Analysis data.

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Special industry equipment averages more than one quarter of the total capital investment in all value-added industry, with food and tobacco devoting the highest share (33.9 percent), lumber and wood the least (16.0 percent). For furniture and leather manufacturing, computers were the leading type of equipment investment, whereas lumber and wood manufacturers made no appreciable new investments in computers. Lumber and wood product industries have their greatest investments in trucks, buses, and trailers.

Over 30 percent of new capital expenditures by furniture manufacturers were devoted to new or improved plant facilities. A similar share of new investment was devoted to plant facilities by lumber and wood products (14.9 percent "industrial buildings" and 13.8 percent "other structures"). Paper and allied product manufacturers, who invest more heavily in machinery and equipment, devoted a relatively small share of their new investment (12.9 percent) to improving or expanding their plant facilities.

Capital Investment Is an Indicator of Growth

The stock of capital, or the capital inventory, indicates the current mix of labor and capital. Industries with a high ratio of capital per worker usually must pay a large share of their revenue to capital, and a relatively small share to labor (salaries and wages).

We can get an indication of whether the stock of capital is growing by looking at new investment—that is, the new plant and equipment purchased to add to the capital stock, or to replace old, worn-out capital that must be replaced. Gross investment is measured by the amount of capital expenditures during a particular year. Depreciation is the amount of capital that wears out or becomes unusable, through physical deterioration or obsolescence. Gross investment must be greater than depreciation in order for the capital stock to grow. If gross investment is less than depreciation, the capital stock will decline. The difference between gross investment and depreciation is net investment.

Investment capital is drawn to activities (industries) that promise high returns so they can expand their capacity and output. Activities with less promising prospects will have difficulty attracting new capital. Thus, industries with strong growth prospects will tend to attract large net investment, while those with less promising prospects will have lower net investment.

Table 1

Shares of capital expenditures by asset type and industry

The largest share of value-added industry capital investment is in special industry machinery

Industry	Industrial buildings	Special industry machinery	General industry equipment	Computing equipment	Trucks, buses, trailers	Principal other asset
			Percent			
Major value-added industries	19.8	28.5	10.2	10.9	8.3	4.0[1]
Food and tobacco	23.1	33.9	5.4	10.3	7.7	5.7[2]
Lumber and wood products	14.9	16.0	*	*	20.1	13.8[3]
Furniture and fixtures	31.1	13.4	*	24.8	8.8	10.5[4]
Paper and allied products	12.9	23.1	22.1	12.0	*	10.4[5]
Leather products	26.8	20.4	13.4	27.5	2.1	2.1[4.5]
Other manufacturing	22.6	6.0	7.5	21.8	*	13.1[4]

*No appreciable new investment. [1] Fabricated metal equipment. [2] Photocopy equipment. [3] Other structures. [4] Metal working machines. [5] Electric transmissions and industry apparatus.

Source: Bureau of Economic Analysis.

Net Investment Indicates Moderate Growth

Net investment measures the difference between total investment and the amount needed to replace worn out and obsolete capital. Positive net investment suggests that businesses are expanding capacity (building new plants, adding production lines) or upgrading existing equipment and facilities. ERS estimates show that net investment was positive in each major value-added industry in the mid-1990's. However, the rate at which value-added industries are adding to their stock of plant and equipment through new capital investment indicates that most are expanding capacity more slowly than other manufacturing industries.

Overall, annual net capital investment by value-added manufacturers in the 1990's amounted to 3.2 percent of the value of their stock of plant and equipment. This was identical to the rate for nonvalue-added manufacturers. Food and tobacco manufacturers, with a rate of 4.6 percent, are the only major value-added industry group that expanded productive capital stock at a rate faster than the 3.2-percent average (fig. 2). Lumber and wood products expanded capacity by 2.5 percent, and the furniture industry expanded by 1.9 percent annually. While the dollar value of net investment per worker by paper and allied product manufacturers exceeds that of other value-added industries, the rate of expansion in their production capacity has averaged a modest 1.6 percent annually in the mid-1990's. The slowest rate of investment among value-added industries was for the leather industry (less than 1 percent annually).

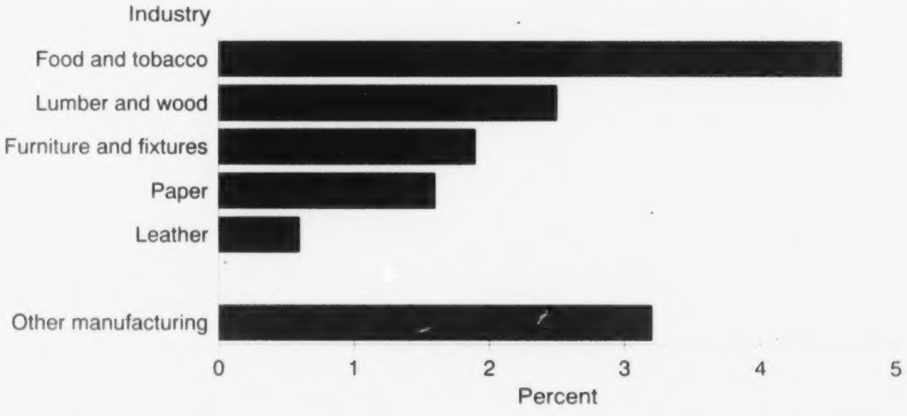
New Investment Concentrated in South and Midwest

New capital expenditures in value-added manufacturing are concentrated in the East North Central (20.5 percent of expenditures) and South Atlantic (23.1 percent) regions (fig. 3). These two regions together accounted for 43.6 percent of capital expenditures by value-added manufacturers. The Pacific region accounted for 12.5 percent of value-added capital expenditures, and the Mid-Atlantic, East South Central, West South Central, and West North Central regions each accounted for between 9 and 11 percent. Two southern regions, the South Atlantic and East South Central regions, combined accounted for nearly 33 percent of all value-added capital expenditures, but only 21 percent of capital expenditures for other types of manufacturing. This indicates the importance of value-added manufacturing in the South.

Figure 2

Net investment as a share of capital inventory: Value-added and other manufacturing industries

Only the food and tobacco industry is expanding capacity at a rate faster than nonvalue-added industry



Source: ERS analysis of Bureau of Economic Analysis data.

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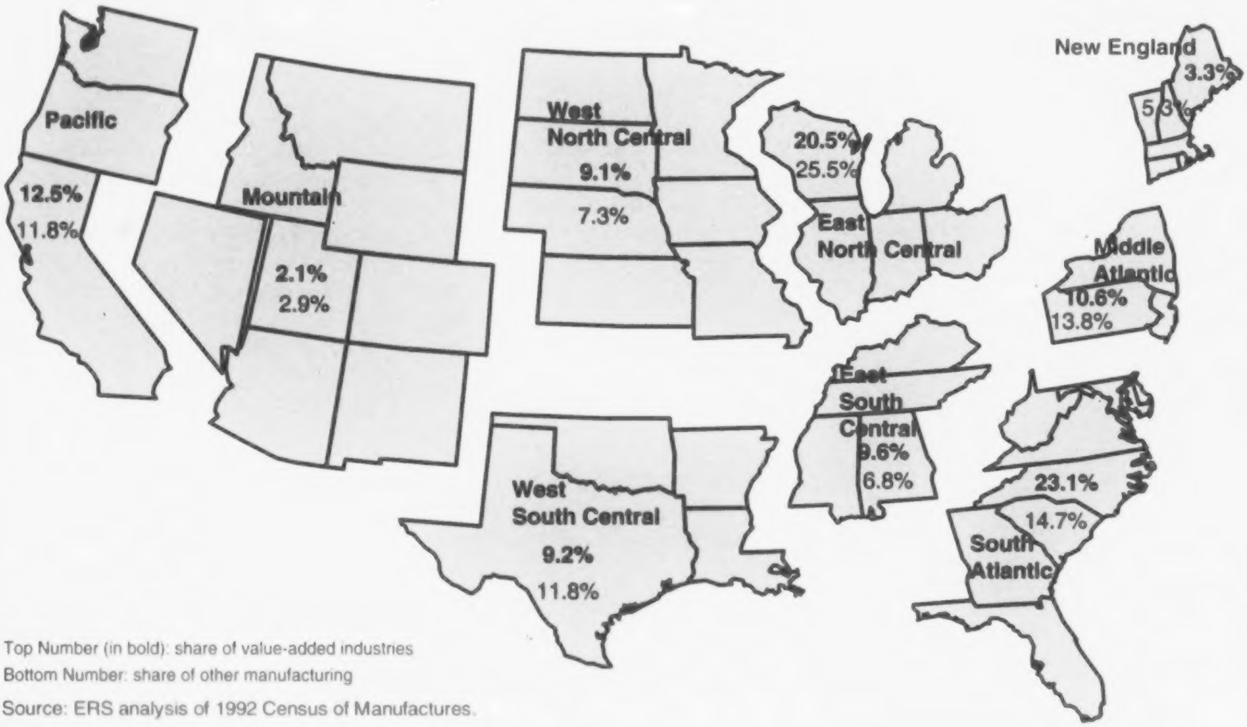
Value-added industries consume an important share of nonmetro investment capital. The food, tobacco, lumber and wood products, paper, and leather industries accounted together for about 34 percent of capital expenditures by nonmetro manufacturing businesses in 1994. In metro areas, those industries' share of capital expenditures was only 14 percent. New investments in value-added industries are relatively concentrated in nonmetro areas. Nonmetro areas accounted for about 40 percent of capital expenditures made by value-added industries in 1994. About half of nonmetro value-added investment occurred in Southern regions.

The concentration of value-added manufacturing industry capital expenditures in nonmetro areas reflects the attraction of capital to other industries in metro areas. The largest shares of new capital expenditures in urban areas go to petroleum, electrical, and transportation equipment industries, while the paper industry has the largest share of capital expenditures in nonmetro areas. *[Patrick Canning, 202-694-5341, pcanning@econ.ag.gov]*

Figure 3

Regional shares of capital investment: Value-added and other manufacturing industries

Southern regions receive a relatively large share of value-added industry investment


Pacific
12.5%
11.8%
Mountain
2.1%
2.9%
West North Central
9.1%
7.3%
West South Central
9.2%
11.8%
20.5%
25.5%
East North Central
East South Central
9.6%
6.8%
New England
3.3%
5.3%
Middle Atlantic
10.6%
13.8%
23.1%
14.7%
South Atlantic

Top Number (in bold): share of value-added industries

Bottom Number: share of other manufacturing

Source: ERS analysis of 1992 Census of Manufactures.

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Most Value-Added Firms Have Access to Needed Capital

Expanding capacity was the most frequently cited reason for undertaking capital investments, while compliance with regulations was cited less frequently than other reasons. Only a few value-added manufacturers reported problems obtaining outside financing. Most report using internal funds and bank loans to finance capital improvements, while few report using equity capital from new, unrelated owners or venture capital firms.

Both new and existing value-added firms need capital to survive and grow. Growing firms need capital to finance new equipment and construction to accommodate expanded operations. Many value-added plants need new or updated equipment to accommodate new technologies and raise worker productivity and competitiveness. Heightened public concerns with environmental quality and food safety have placed additional pressure on value-added firms to make investments in new technologies and equipment to comply with government regulations and standards.

The ERS Rural Manufacturing Survey (see description in "Data Sources" appendix) shows that 58 percent of value-added manufacturing plants reported having planned or undertaken a major expansion or modernization during the 3 years preceding the survey. This is slightly higher than the percentage (52 percent) of other manufacturing establishments reporting an expansion or modernization. Over 80 percent of printing, dairy products, and preserved fruits and vegetables manufacturers, and over 70 percent of sawmills and manufacturers of wood buildings and mobile homes reported an expansion/modernization.

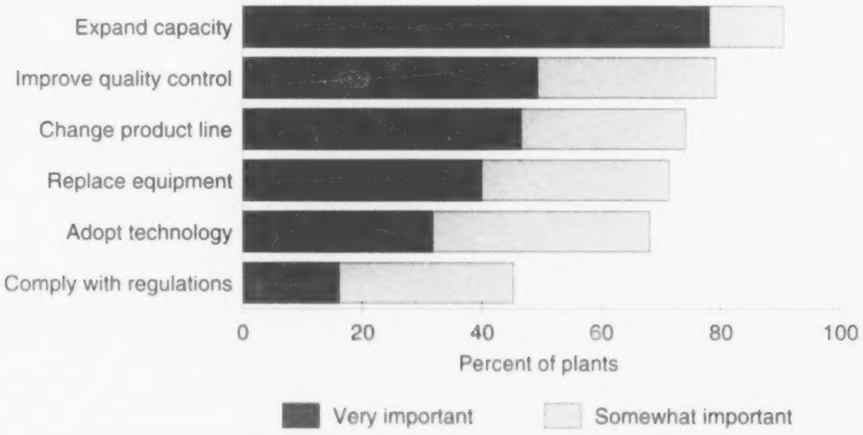
Expanding Capacity Is Most Common Reason for Capital Investment

Capital investment is needed when old equipment or facilities are worn out or damaged and need to be replaced. Investment can also expand the scale of operations or upgrade the production process with new technologies or management techniques. The Rural Manufacturing Survey asked respondents who had expanded or modernized their plant and equipment within the previous 3 years about reasons for capital investment decisions. Expanding production capacity was the most cited reason for capital investments. Nearly all respondents identified "Expand production capacity" as an important reason. Nearly 80 percent said it was "very important," and another 12 percent said it was "somewhat important" (fig. 1). These responses suggest considerable growth and optimism on the part of value-added firms.

Figure 1

Reasons for investing in capital improvements by value-added manufacturing plants

The most common reason for investing was expanding of capacity



Source: ERS analysis of 1996 Rural Manufacturing Survey.

Four other reasons for investment, "improve quality control," "change or add to the product line," "replace old or damaged equipment," and "adopt new technology or management practice," were also frequently cited as "very important" or "somewhat important." Each of these reasons was cited by 70 to 80 percent of respondents as either "somewhat important" or "very important." Quality control has been an increasingly important concern for manufacturers, as product quality has become an important determinant of a company's competitiveness. Food safety concerns have also raised the importance of quality control in food processing industries. Many businesses are adopting new technologies and management practices to raise employee productivity, cut materials waste, and promote flexibility in the production process.

Among value-added industries, compliance costs associated with environmental and food safety regulations are an important issue. Sixteen percent cited "comply with new regulations" as a "very important" reason for capital investment, and 29 percent cited it as "somewhat important." The frequency with which compliance is cited as a reason for capital investment suggests that regulatory costs are significant. Still, compliance with regulations is cited less frequently than reasons (listed above) that are directly related to maintaining or increasing the competitiveness of the manufacturing business.

Most Investments Use Internally Generated Funds or Bank Loans

Most respondents to the Rural Manufacturing Survey used internal sources of financing for capital investments. About two-thirds of value-added establishments used retained earnings, and half of those that were part of a multiunit firm used funds from elsewhere in the firm. Most also used borrowed funds. Of the 58 percent of value-added establishments that used borrowed funds, 90 percent said they borrowed from a bank or savings and loan, 25 percent borrowed from individuals and families, and only a few respondents borrowed from other firms or issued bonds. About 11 percent acquired capital by issuing new equity investments. Of those, three out of four said the new capital came from existing owners, partners, or their families. One in four said capital came from new, unrelated owners, and only a few used a venture capital firm. About 1 in 10 value-added establishments reported that a government program had a role in financing their capital improvements.

Few Businesses Report Problems With Access to Capital

About 18 percent of value-added manufacturers had to curtail their plans for capital improvements due to problems encountered in carrying out their investment plans. Rural Manufacturing Survey respondents were asked to rate the importance of four potential problems that can hinder capital investment plans. Three problems, "acquiring support from headquarters," "underestimated financial costs," and "uncertain or changing product market situation," were cited with roughly equal frequency (fig. 2). About 10 percent of respondents cited each as a major problem, and about 30 percent cited each as a minor problem. A fourth problem, "difficulty in arranging outside financing," was also cited by 10 percent as a major problem, but was cited by fewer than 20 percent as a minor problem. This suggests that most existing value-added businesses are able to acquire the capital they need to expand or update their operations.

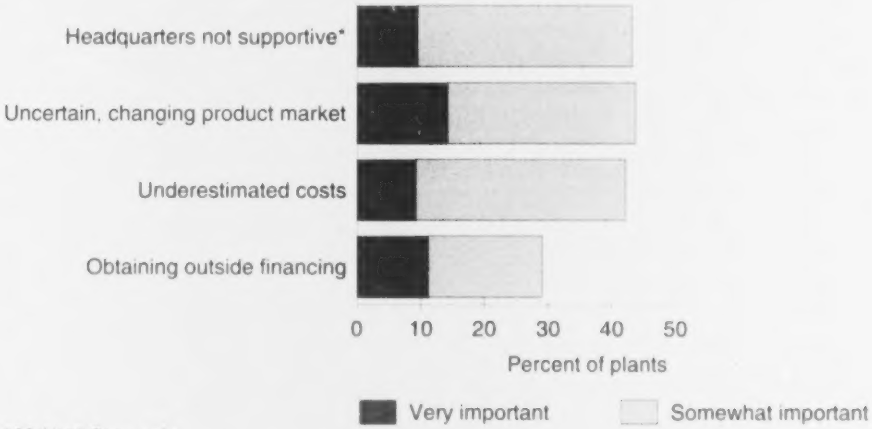
The responses by value-added businesses discussed above were very similar to those of other manufacturing businesses. The survey responses did not reveal any disadvantages or barriers to capital access specific to value-added firms. This is consistent with other recent studies that found few problems with access to capital for rural businesses. However, a weakness of this analysis is that it says little about the difficulties encountered by new firms or plants when attempting to raise capital. The Rural Manufacturing Survey includes only a very few new plants and says nothing about plants that went out of business or were unable to begin operations due to lack of capital. The survey also lacks information on very small firms (with less than 10 employees), which face the greatest problems in raising capital.

In particular, there are concerns about financing for innovative value-added activities that are unfamiliar to local bankers. New, risky businesses often rely upon venture capital firms, but small, rural businesses may not have access to this type of capital. Our survey shows that most new equity capital comes from existing owners and relatives. While these results indicate few problems with capital access, officials and economic development professionals planning a value-added development strategy should be aware of the possible capital needs of new start-ups and innovative business ventures. *[Fred Gale, 202-694-5349, fgale@econ.ag.gov]*

Figure 2

Problems encountered by value-added manufacturers when undertaking capital investment plans

Difficulty obtaining outside financing was reported less frequently than other problems



* Multiunit firms only.

Source: ERS analysis of Rural Manufacturing Survey.

Trade Agreements May Open New Markets for Value-Added Exports

Developments in world markets have important implications for value-added products. Freer trade as a result of international trade agreements has contributed to growth in processed food and forest products trade. The direct impacts of lower trade barriers on U.S. exports appear to be modest, so far, but rising incomes worldwide due to liberalized trade may have a more important impact on demand for U.S. value-added exports.

Exports are an important component of demand for value-added products. About 5 percent of U.S. processed food output is exported, and the percentage is even higher for lumber and wood products and pulp and paper (table 1). Exports of processed food and beverages exceed exports of bulk agricultural commodities by a considerable margin, and exports of processed commodities create considerably more jobs than exports of bulk commodities (see app. 5, "Economic Activity Triggered by Agricultural Trade"). Many value-added sectors are controlled by large multinational corporations, so global developments have an important effect on markets for these products (see D.R. Henderson, C.R. Handy, and S.A. Neff (eds.), *Globalization of the Processed Foods Market, Economic Research Service*, AER-742, September 1996).

Among developed countries, trade in processed agricultural and forest products has grown more rapidly than trade in basic commodities. Over the 10-year period from the early 1980's to the early 1990's, exports of processed agricultural commodities by Organization for Economic Cooperation and Development (OECD) countries grew 4.5 percent annually, while exports of basic agricultural commodities increased by only 0.1 percent per year. As a result, the share of processed commodities in OECD agricultural exports increased from 27 to 37 percent. Imports of processed products also grew rapidly. Over the same time period, OECD imports of processed agricultural commodities increased 5.4 percent annually, while imports of basic agricultural commodities increased 2.2 percent annually. Similarly, trade trends in forest products reflect an increasing importance of higher valued products to global trade.

Growth in processed commodities trade has been driven by income-related demand growth in both industrialized economies and developing countries, large and growing populations in developing countries, and changing consumption patterns facilitated by product development and technical innovation. As the standard of living has increased, the preference for processed food, convenience foods in particular, and forest commodities has increased. Technological improvements have greatly facilitated transportation and storage of agricultural products and have contributed to increased and stable supply at competitive prices. For example, improved transportation and storage have led to a rapid increase in the trade of chilled and frozen vegetable products. Similarly, changes in technology and preferences will favor growth in consumption of reconstituted products as opposed to solid products, such as sawn wood.

International Trade Agreements Reduce Trade Barriers

Freer trade resulting from various international trade agreements, including the World Trade Organization (WTO), and its predecessor, the General Agreement on Tariffs and Trade (GATT), has the potential to open new markets for U.S. products. As a result of negotiations under the Uruguay Round of GATT, nontariff trade barriers were converted to tariffs providing an equivalent degree of protection, tariffs are being cut for many commodities, and subsidies and other trade-distorting measures are being reduced or eliminated. For some commodities unilateral reforms and bilateral agreements have been even more significant than reforms required by the Uruguay Round. Reduction of trade barriers is particularly important for trade in processed commodities because many countries have higher rates of protection for processed goods than for unprocessed commodities. The Uruguay Round of GATT sought to reduce this "tariff escalation," but it is still permitted under WTO rules and still exists in many countries. Tariff escalation appears to be more prevalent and severe in developing countries than in developed nations.

Worldwide, forest products tend to be among the least protected commodities. Trade in forest products has generally benefited from successive multilateral accords under the WTO and GATT. Pre-Uruguay Round tariff rates on forest products were the lowest of all major industrial product groups, and WTO member nations are required to reduce them even further. Additionally, the major developed countries have committed themselves to phasing out tariffs on pulp and paper products during 1995-2005, and many of these countries are also eliminating the tariffs on furniture imports. Forest products have the highest percentage of all imports (85 percent) without duty in developed country import markets. Developing country tariff rates on forest products have also been reduced, but they are still generally higher than those in developed markets. In most markets tariff escalation will be reduced or eliminated under WTO, but a high degree of tariff escalation for forest products still persists in some markets.

Trade in textiles and clothing is largely subject to bilateral quotas negotiated under the Multifibre Arrangement. The objective of the WTO is to eventually integrate the sector into the GATT. In January 1995, each WTO member nation integrated into the GATT products from the specific list in the Agreement, which accounted for not less than 16 percent of its total volume of imports in 1990. All remaining products will be integrated in stages by January 2005. U.S. textiles are believed to have a competitive advantage in access to low-cost cotton and high levels of efficiency, but the labor-intensive U.S. apparel sector, vulnerable to imports from low-wage competitors, could struggle to remain competitive in an environment of freer trade.

Tariffication of products containing sugar has been at rather high levels, reflecting tariffication levels for raw sugar, and less than average reduction commitments. Thus, trade in sugar products probably will not grow significantly.

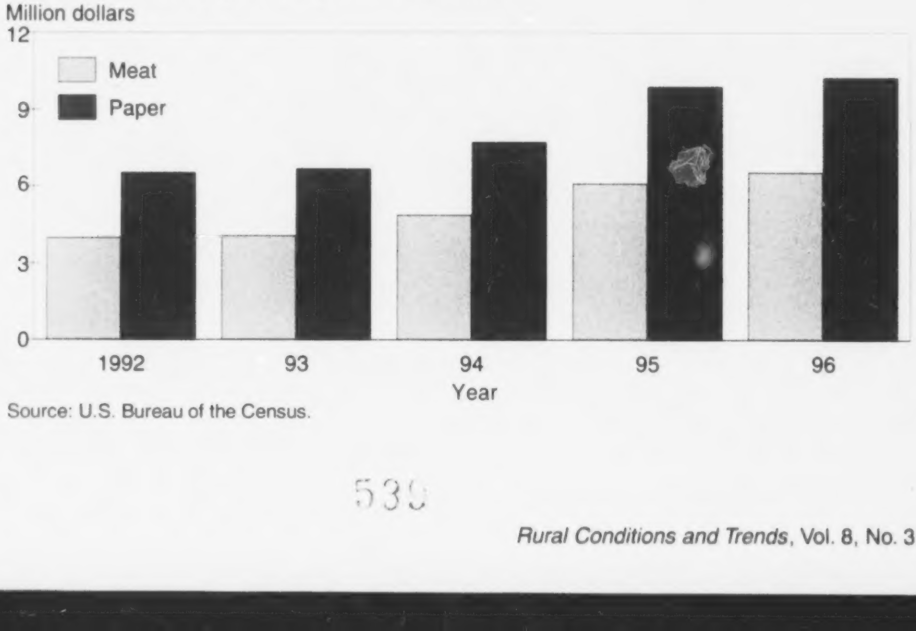
Trade in processed fruit and vegetable products is growing rapidly. U.S. exports of fruits and nuts grew from under $3.2 billion in 1992 to over $4.1 billion in 1996. Tariff levels tend to vary according to whether they apply to competing or noncompeting products. While considerable tariff escalation is observed in fruit and vegetable products, tariffs are reduced substantially for some products. Overall, some additional growth is expected, mainly in products that had not faced high tariff barriers because they do not compete with domestically produced products.

Meat trade has grown rapidly (nearly 7 percent annually for developed countries). U.S. exports of meat products grew from about $4 billion in 1992 to over $6.5 billion in 1996 (fig. 1). Much of the growth can be attributed to trade liberalization in Japan and Korea resulting from unilateral reforms and bilateral trade negotiations with the United States. Trade in meat products was growing prior to the Uruguay Round, and ERS projects continued export growth in the future.

Figure 1

Exports of meat and paper products, 1992-96

Exports of meat and paper have grown in the 1990's



Source: U.S. Bureau of the Census.

Trade in noncheese dairy products has not increased substantially since the early 1980's and tariff reductions in processed dairy products and products containing significant dairy inputs are close to the minimal rate in most cases (an exception is the European Union, which reduced tariffs on most dairy products by 36 percent). Thus, with the exception of cheese, processed dairy products are expected to benefit less in terms of trade than other commodities. Trade in cheese, however, is likely to be affected because of export subsidy commitments, especially those made by the European Union, the world's biggest exporter of cheese. Combined with some growth in trade from the minimum access quotas, there could be significant benefits for non-European Union cheese exporters.

Other Factors May Influence Trade

An important aspect of most trade agreements for trade in processed foods was the creation of a clearer set of obligations regarding product safety standards. The Uruguay Round agreement allows countries to determine their own standards governing food safety and health, but establishes a number of obligations to discourage their use as barriers to trade. The agreement provides for standardized sanitary and phytosanitary rulemaking and established a new dispute settlement mechanism to improve enforcement. These measures potentially could open new markets for U.S. value-added exports and open the U.S. market to import competition.

Factors other than trade policies will have important effects on trade in processed products. International marketing of processed products is much more complex than is the marketing of homogeneous basic commodities. Aspects such as brand awareness and product differentiation are important. Markets for bulk commodities and logs more closely resemble the economist's perfectly competitive model than do markets for processed food. Trade in processed food is often controlled by a few large multinational companies, and trade is based less on comparative advantage and resource endowments and more on strategic considerations. Also, food and beverage companies often prefer to sell to foreign markets by establishing foreign operations (foreign direct investment) rather than exporting directly. Growing foreign markets may be supplied by newly established overseas plants owned by U.S. companies rather than by exports of U.S. products. Other factors influencing trade include transportation costs, input price and availability, quality control, customer service, and the need to tailor products to local preferences.

Studies have projected that incomes, in general, will increase worldwide as a result of WTO and GATT. Freer trade will permit resources to be put to their most efficient use, raising productivity and earnings. Costly subsidies will be reduced and prices will drop for many consumers. This may be the most important impact of the Uruguay Round Agreement. Higher incomes will increase the demand for processed products and expand worldwide markets for value-added products. *[Marinos Tsigas, 202-694-5441, mtsigas@econ.ag.gov]*

Table 1

Exports as a share of manufacturers' shipments: selected value-added industries, 1993

Exports are an important component of demand for many value-added products

Industry	SIC[1]	Export share
		Percent
Food products	20	5
Meat products	2011	7
Poultry and eggs	2015	5
Condensed and evaporated milk	2023	8
Canned specialties	2032	2
Canned fruits and vegetables	2033	6
Canned, fresh, and frozen fruits and vegetables	2037	7
Flour and grain mill products	2041	6
Cereal breakfast foods	2043	2
Wet corn milling	2046	23
Chocolate confections	2066	5
Soybean oil mill products	2075	16
Malt beverages	2082	1
Bottled and canned soft drinks	2086	1
Chips	2096	2
Cigarettes	2111	17
Cotton broadwoven fabrics	2211	9
Broadwoven wool fabrics	2231	6
Leather and sheep-lined clothing	2386	32
Lumber and wood products	24	9
Logs and pulpwood	2411	28
Sawmill and planing products	2421	14
Wood millwork products	2431	3
Hardwood veneer and plywood	2435	13
Softwood veneer and plywood	2436	7
Reconstituted wood products	2493	6
Furniture and fixtures	25	6
Paper and allied products	26	7
Pulp mill products	2611	49
Paper and paperboard products	262,263	8
Sanitary paper products	2676	4
Books	2731	10
Blankbooks, looseleaf binders	2782	7
Synthetic cellulosic fibers	2823	27
Gum and wood chemicals	2861	17
Leather	3111	28
Men's footwear	3143	7
Women's footwear	3144	5

[1] Standard Industrial Classification code.

Source: U.S. Bureau of the Census, *U.S. Commodity Exports and Imports as Related to Output: 1993 and 1992*, OEI/93, September 1995.

Farm- and Forest-Related Value-Added Exports Boost the U.S. Economy

Value-added exports have an important impact on the U.S. economy that extends to many sectors. Exports by agricultural- and wood-based value-added industries supported an estimated 940,000 U.S. jobs in 1996. Each export dollar generated $1.51 in supporting activity spread across all sectors of the economy.

Exports are a key to competitiveness for value-added firms and they support a considerable amount of economic activity in the United States. In 1996, the United States exported an estimated $63.9 billion of value-added agricultural- and wood-based products, including $21.7 billion of commodities from the food processing sector, $13.8 billion of exports from lumber and wood manufacturing sectors, $13.5 billion from paper and printing sectors, and $8.2 billion of trade and transportation services to get exported goods from the processing plant to the port (table 1). Direct value-added exports generated an additional output of $96.7 billion; therefore, each dollar received from value-added farm and forest exports stimulated an additional $1.51 in supporting activities. The additional business activity attributable to high value exports was distributed across all economic sectors: 22 percent to farming, 37 percent to manufacturing, 5 percent to forest and agricultural services, 25 percent to other services, and 11 percent to wholesale and retail trade, and transportation. Value-added exports generated an estimated 940,400 full-time civilian jobs, including 116,200 or 3.4 percent of all jobs in the farm sector. Processors' purchases of raw and bulk commodities, fertilizer, and other backward-linked inputs to produce exported commodities spurred economic activity in the (mostly rural) farming and forest sectors and trade and transportation sectors.

Value-Added Exports Generate New Business, Add Jobs

The $96.7 billion of supporting activities included $21.4 billion from the farm sector. Because no direct exports from the farm sectors were included in this analysis, all of the output generated in the farm sector was in support of the processed or manufactured

Table 1

Economic activity supported by value-added agricultural and wood products by industry, 1996

Over 940,000 jobs are supported directly or indirectly by value-added exports

Industry	Exports	Supporting activity	Total activity	Income	Employment
	Million dollars				Number
Farming	0	21,363	21,363	8,164	116,156
Mining	0	2,165	2,165	1,370	6,940
Forestry, fishing, agricultural services	0	5,213	5,213	1,866	50,153
Food processing	21,671	7,077	28,746	5,896	86,279
Finished textiles	311	544	855	284	6,747
Leather	692	183	875	226	4,946
Tobacco	4,992	836	5,828	3,244	7,336
Lumber and wood products	12,334	6,483	18,817	6,060	119,966
Wood furniture[1]	1,488	-24	1,464	655	17,103
Paper	11,520	4,345	15,865	6,337	57,499
Printing and wood chemicals and fibers	2,053	733	2,786	1,337	20,928
Other manufacturing	666	15,460	16,126	6,480	75,984
Transportation	2,310	4,621	6,931	3,790	68,839
Wholesale and retail trade	5,897	6,574	12,471	8,766	124,581
Food service	0	554	554	288	14,006
Other services	0	20,522	20,522	11,528	162,991
Total	63,934	96,648	160,580	66,291	940,454

[1] Negative supporting activity indicates that most wood furniture production is used as a final product and not as an intermediate input into other industries, which would stimulate added activity. Further, some demand is met by production from other industries and imports.

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, and Bureau of the Census.

high-value exports. These exports also generated supporting activities worth $2.1 billion in the mining sector, $5.2 billion in the forest and agricultural services sectors, and $20.9 billion from the service sectors (such as credit, banking, real estate, and computers). None of these sectors contributed any direct value-added exports. Nonfarm, nonforestry sectors of the economy received about 78 percent or $134 billion of the additional economic activity.

Various factors, including export commodity mix, sectoral prices, and volume of goods, contributed to the level of estimated employment required to support 1996's value-added exports. Of the 940,400 full-time civilian jobs related to forest and agricultural value-added exports, more than 116,000 were on U.S. farms. Additionally, 824,000 jobs in the nonfarm sector were directly or indirectly related to the assembling, processing, and distributing of these products for export. About 86,000 of these were in food processing, 57,000 in forestry and mining, 7,000 in textiles, 5,000 in the leather industry, 7,000 in the tobacco manufacturing sector, 119,000 in the lumber and wood industries, 95,000 in the furniture, paper, and printing industries, 125,000 in wholesale and retail trade, 69,000 in transportation, 14,000 in food service, and 163,000 in other services.

Value-added agricultural exports accounted for $27.7 billion (43 percent of all direct exports) of which $21.7 billion was processed food. Exports of forest-based processed products were valued at $28 billion. Paper and printed products exports were worth over $12 billion, wood and wood furniture exports were $15 billion, and the gum and wood chemical sector exports were under $1 billion.

Nonfarm Sector Receives Most Income Effects

Some of the business activity stimulated by foreign trade includes inputs purchased from other sectors. Although $1 of value-added forest and agricultural exports in 1996 generated $2.51 in total (direct and supporting) economic activity, $1 represented income to wage earners, profits, and taxes. Thus, the $63.9 billion of exports in 1996 generated $160.6 billion of total economic activity but $63.9 billion of income in the form of wages, profits, and taxes.

In 1996, 88 percent of total income attributed to high-value exports was returned to the nonfarm sectors, with nonfarm, nonfood sectors of the economy receiving 79 percent. The forest and agriculture services sectors—which include forest nurseries, sap gathering, crop and animal management, and landscaping (but not logging), and which had no direct exports included in this analysis—accrued almost $2 billion of income from exports. The services, farming, and mining sectors also had no direct exports in this commodity bundle but shared large amounts of the income derived from trade. The service industries shared $11.5 billion, farming $8.2 billion, and mining $1.4 billion. The farm sector received 12 percent of the total income from agricultural exports, while the food processing sector received 9 percent, reflecting the importance of durable manufacturing and its attendant services in this export bill of goods.

This analysis does not include additional spending that may result from higher levels of income associated with agricultural trade. With this additional income earned from exports, U.S. farmers, factory workers, and households can purchase more appliances, farm equipment, building supplies, and other capital and consumer goods. More purchasing power is spread throughout the total economy. The heightened activity, trade, and transportation can boost investment in plants and equipment. Because this analysis does not consider such additional spending, our estimates of the economywide influences of high-value trade are conservative. *[William Edmondson, 202-694-5374, wedmonds@econ.ag.gov]*

Data Sources

Annual Survey of Manufactures

The U.S. Bureau of the Census conducts this survey of a sample of manufacturing establishments each year. This is the most comprehensive source of information about U.S. manufacturing shipments, cost of materials, value added, wages, employment, and capital expenditures. The most recent published data available at time of publication was from 1995. These data are available for detailed (four-digit SIC) industries, but little or no regional detail is usually available. However, ERS has obtained special tabulations of metro and nonmetro totals for years 1989 through 1994. Nonmetro manufacturing statistics are obtained from these special tabulations.

Farm and Farm-Related Employment

The enhanced County Business Patterns data are combined with farm employment data from the Bureau of Economic Analysis to estimate farm and farm-related employment. Farm and farm-related employment includes jobs not only in farm production, but also in its closely related industries—agricultural services, forestry, and fishing; agricultural inputs; and processing and marketing of agricultural goods—as well as industries peripherally related to farming—wholesale and retail trade of agricultural products and indirect agribusiness. Farm and farm-related industries are identified as industries having 50 percent or more of their national workforce employed in providing goods and services necessary to satisfy the final demand for agricultural products. An exception to this criterion is indirect agribusiness, in which percentages range between 32 and 50 percent.

Indexes of Industrial Production

The Federal Reserve Board estimates a monthly index of industrial production for manufacturing industries. The production index measures real output and is expressed as a percentage of real output in the base year, currently 1992. Indexes are constructed from a variety of source data, such as the quinquennial Censuses of Manufactures and Mineral Industries and the Annual Survey of Manufactures, prepared by the Bureau of the Census. On a monthly basis, the individual indexes of industrial production are constructed from two main types of source data: (1) output measured in physical units and (2) data on inputs to the production process, from which output is inferred. Data on physical products, such as tons of steel or barrels of oil, are obtained from private trade associations as well as from government agencies, including those listed above; data of this type are used to estimate monthly indexes where possible and appropriate. When suitable data on physical products are unavailable, estimates of output are based on either production-worker hours or electric power use by industry. Data on hours worked by production workers are collected in the monthly establishment survey conducted by the Bureau of Labor Statistics. The factors used to convert inputs into estimates of production are based on historical relationships between the inputs and the comprehensive data used to benchmark the indexes; these factors also may be influenced by technological or cyclical developments.

National Earnings and Employment Data

Analyses of earnings by value-added workers is based on data from the Current Population Survey, also conducted by the U.S. Bureau of the Census. This is a survey of households that provides detailed information on labor force, employment, unemployment, and demographic characteristics of the metro and nonmetro populations. Estimates are based on interviews of a national sample of about 47,000 households that are representative of the U.S. civilian noninstitutional population 16 years of age and older.

Nonmetro Employment and Establishments by Industry

Employees and establishments by county are based on 1989-94 County Business Patterns data released by the U.S. Bureau of the Census. The employment data released by the Census Bureau includes many suppressed values to protect confidentiality of individual firms. We used an enhanced version of County Business Patterns data that includes imputed numbers for suppressed employment values estimated by Claritas, Inc.

The Rural Manufacturing Survey

ERS, in cooperation with Washington State University, conducted a nationwide survey of rural manufacturing businesses in 1996 to evaluate problems that affect their competitiveness. The Rural Manufacturing Survey provides extensive information on 2,844 nonmetro establishments and 1,065 metro establishments with 10 or more employees representing all manufacturing industries. The questions covered technology use, labor skills and training, locational barriers to competitiveness, and sources of financing. This report uses the Rural Manufacturing Survey data to evaluate the extent of local materials purchasing and capital investment decisions by value-added manufacturers.

Appendix 2

Definitions

Food and Fiber System: The set of producers of goods and services required to assemble, process, and distribute raw farm products to U.S. and foreign consumers.

Input-output model: An economic model that represents the economy as a set of sales and purchases between sectors, final demands, and payments to labor, capital, profits, and indirect business taxes.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people and a total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically and socially integrated with the core county. Metro areas are divided into central cities and areas outside central cities (suburbs). Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Regions:

Bureau of Economic Analysis regions
New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
Mideast—Delaware, District of Columbia, Maryland, New Jersey, New York, and Pennsylvania.
Great Lakes—Illinois, Indiana, Michigan, Ohio, and Wisconsin.
Plains—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.
Southeast—Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia.
Southwest—Arizona, New Mexico, Oklahoma, and Texas.
Rocky Mountain—Colorado, Idaho, Montana, Utah, and Wyoming.
Far West—Alaska, California, Hawaii, Nevada, Oregon, and Washington.

Census regions and divisions

Northeast region:
New England—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.
Middle Atlantic—New Jersey, New York, and Pennsylvania.

Midwest region:
East North Central—Illinois, Indiana, Michigan, Ohio, and Wisconsin.
West North Central—Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, and South Dakota.

South region:
South Atlantic—Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, and West Virginia.
East South Central—Alabama, Kentucky, Mississippi, and Tennessee.
West South Central—Arkansas, Louisiana, Oklahoma, and Texas.

West region:
Mountain—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming.
Pacific—Alaska, California, Hawaii, Oregon, and Washington.

Value-Added Manufacturing

We defined most farm- and forest-related value-added manufacturing on the basis of the proportion of intermediates (goods used in the production process, excluding labor and capital) obtained directly from farms and forestry or logging operations or indirectly from closely related operations. In most cases, an industry had to obtain at least 20 percent of its intermediates from farm or forest inputs. The Bureau of Economic Analysis' Input-Output (I-O) Tables were used in calculating those percentages. A few additional industries were defined as value-added on the basis of their four-digit standard industrial code (SIC), which indicated that they made products from cotton, wool, leather, or wood. These industries could not be identified as value-added using the I-O table because they were combined with other four-digit industries in the I-O classification scheme. The fabric and apparel industries are probably underrepresented in our analysis because they are mostly classified by the type of product made, such as broad- or narrow- loomed fabric, men's wear, or mittens, not by the content of the product. Some of the fabric and apparel industries we excluded undoubtedly use cotton, other cellulose fiber from plants and trees, or wool to make their products, but we could not reliably identify them.

Appendix table 1—Value-added industry definition using four-digit SIC code

SIC code	Description
2011	Meat packing plants
2013	Sausages and other prepared meat products
2015	Poultry slaughtering and processing
2021	Creamery butter
2022	Natural, processed, and imitation cheese
2023	Dry, condensed, and evaporated dairy products
2024	Ice cream and frozen deserts
2026	Fluid milk
2032	Canned specialities
2033	Canned fruits, vegetables, preserves, jams, and jellies
2034	Dried and dehydrated fruits, vegetables, and soup mixes
2035	Pickled fruits and vegetables, vegetable sauces and seasonings, and salad dressings
2037	Frozen fruits, fruit juices, and vegetables
2038	Frozen specialities, not elsewhwere classified
2041	Flour and other grain mill products
2043	Cereal breakfast foods
2044	Rice milling
2045	Prepared flour mixes and doughs
2046	Wet corn milling
2047	Dog and cat food
2048	Prepared feeds and feed ingredients for animals and fowls, except dogs and cats
2051	Bread and other bakery products, except cookies and crackers
2052	Cookies and crackers
2053	Frozen bakery products, except bread
2061	Cane sugar, except refining
2062	Cane sugar, refining
2063	Beet sugar
2064	Candy and other confectionery products
2066	Chocolate and cocoa products
2067	Chewing gum
2068	Salted and roasted nuts and seeds
2074	Cottonseed oil mills
2075	Soybean oil mills
2076	Vegetable oil mills, except corn, cottonseed, and soybean
2077	Animal and marine fats and oils
2079	Shortening, table oils, margarine, and other edible fats and oils, not elsewhere classified
2082	Malt beverages
2083	Malt
2084	Wines, brandy, and brandy spirits
2085	Distilled and blended liquors
2086	Bottled and canned soft drinks and carbonated waters
2087	Flavoring extracts and flavoring syrups, not elsewhere classified
Selected industries from miscellaneous food preparations and kindred products (SIC 209)	
2096	Potato chips, corn chips, and similar snacks
2098	Macaroni, spaghetti, vermicelli, and noodles
2099	Miscellaneous preparations, not elsewhere classified

—Continued

Appendix table 1—Value-added industry definition using four-digit SIC code—Continued

SIC code	Description
2111	Cigarettes
2121	Cigars
2131	Chewing and smoking tobacco and snuff
2141	Tobacco stemming and redrying
Selected industries from textile mill products (SIC 22):	
2211	Broadwoven fabric mills, cotton
2231	Broadwoven fabric mills, wool (including dyeing and finishing)
2261	Finishers of broadwoven fabrics of cotton
2281	Yarn spinning mills
2282	Yarn texturizing, throwing, twisting, and winding mills
Selected industry from apparel (SIC 23):	
2386	Leather and sheep-lined clothing
2411	Logging
2421	Sawmills and planing mills
2426	Hardwood dimension and flooring mills
2429	Special product sawmills, not elsewhere classified
2431	Millwork
2434	Wood kitchen cabinets
2435	Hardwood veneer and plywood
2436	Softwood veneer and plywood
2439	Structural wood members, not elsewhere classified
2441	Nailed and lock corner wood boxes and shook
2448	Wood pallets and skids
2449	Wood containers, not elsewhere classified
2451	Mobile homes
2452	Prefabricated wood buildings and components
2491	Wood preserving
2493	Reconstituted wood products
2499	Wood products, not elsewhere classified
Selected industries from furniture and fixtures (SIC 25):	
2511	Wood household furniture, except upholstered
2512	Wood household furniture, upholstered
2517	Wood television, radio, phonograph, and sewing machine cabinets
2521	Wood office furniture
2541	Wood office and store fixtures, partitions, shelving, and lockers
2611	Pulp mills
2621	Paper mills
2631	Paperboard mills
2652	Setup paperboard boxes
2653	Corrugated and solid fiber boxes
2655	Fiber cans, tubes, drums, and similar products
2656	Sanitary food containers, except folding
2657	Folding paperboard boxes, including sanitary
2671	Packaging paper and plastics film, coated and laminated
2672	Coated and laminated paper, not elsewhere classified
2673	Plastics, foil, and coated paper bags
2674	Uncoated paper and multiwall bags
2675	Die-cut paper and paperboard and cardboard
2676	Sanitary paper products

—Continued

Appendix table 1—Value-added industry definition using four-digit SIC code—Continued

SIC code	Description
2677	Envelopes
2678	Stationery, tablets, and related products
2679	Converted paper and paperboard products, not elsewhere classified
Selected industries from printing, publishing, and allied industries (SIC 27):	
2732	Book printing
2750	Commercial printing
2760	Manifold business forms
2782	Blankbooks, looseleaf binders and devices
Selected industries from chemicals and allied products (SIC 28):	
2823	Cellulosic manmade products
2861	Gum and wood chemicals
3111	Leather tanning and finishing
3131	Boot and shoe cut stock and findings
3142	House slippers
3143	Men's footwear, except athletic
3144	Women's footwear, except athletic
3149	Footwear, except rubber, not elsewhere classified
3151	Leather gloves and mittens
3171	Women's handbags and purses
3172	Personal leather goods, except women's handbags and purses
3199	Leather goods, not elsewhere classified

Appendix table 2—Value-added industry definition using two-digit SIC code

SIC code	Description
20	Food and kindred products
21	Tobacco products
24	Lumber and wood products, except furniture
26	Paper and allied products
31	Leather and leather products

Appendix table 3—Farm-related value-added manufacturing by sector and detailed industry

Sectors and industries	Establishments[1] 1994	Establishments[1] Change, 1989-94	Employees[1] 1994	Employees[1] Change, 1989-94	Counties with at least one establishment in the industry[2] 1994	Counties with at least one establishment in the industry[2] Change, 1989-94
	Number	Percent	Number	Percent	Number	Percent
Meat products	3,136	2.9	420,218	17.0	1,324	5.9
Red meat packing	1,312	1.7	127,015	5.4	872	2.8
Sausages and other processed meat products	1,200	0	85,021	8.2	570	5.2
Poultry slaughter and processing	567	23.3	207,799	31.2	357	21.0
Dairy products	1,941	-12.1	134,702	-4.6	762	-8.1
Creamery butter	29	-38.3	1,507	-10.4	28	-39.1
Natural, processed, and imitation cheese	548	-7.6	35,780	11.7	282	-5.7
Dry, condensed, and evaporated dairy products	214	19.6	15,234	2.4	182	20.5
Ice cream and frozen deserts	443	-12.3	20,474	-4.0	254	-10.2
Fluid milk	692	-18.6	61,656	-13.3	439	-15.1
Canned, frozen, and preserved fruits and vegetables[3]	2,003	6.3	187,624	.7	703	8.3
Canned specialities	209	-.9	20,677	-8.6	151	3.4
Canned fruits, vegetables, preserves, jams, and jellies	657	8.6	47,394	-.6	363	11.0
Dried and dehydrated fruits, vegetables, and soup mixes	161	15.0	13,067	21.1	95	11.8
Pickled fruits and vegetables[4]	369	-.5	18,799	-3.2	229	6.0
Frozen fruits, fruit juices, and vegetables	253	3.3	43,073	-7.3	150	7.1
Frozen specialities, not elsewhere classified	333	15.8	44,720	14.8	191	7.3
Grain mill products	2,650	5.3	107,936	5.2	1,215	4.8
Flour and other grain mill products	364	3.1	13,456	2.0	279	-.4
Cereal breakfast foods	64	16.4	15,717	-1.6	55	34.1
Rice milling	59	0	4,164	-12.3	33	0
Prepared flour mixes and doughs	214	46.6	16,838	42.6	150	37.6
Wet corn milling	58	5.5	8,450	1.5	50	6.4
Dog and cat food	161	-10.1	14,199	3.2	137	-6.2
Prepared feeds and feed ingredients[5]	1,702	4.6	35,051	1.6	961	5.4
Bakery products	3,346	13.0	219,559	1.2	755	8.5
Bread and other bakery products	2,331	9.1	154,833	-2.2	615	5.9
Cookies and crackers	436	15.3	50,482	9.4	219	17.1
Frozen bakery products, except bread	166	19.4	12,505	17.7	120	16.5
Sugar and confectionery products	1,141	3.5	88,904	-2.7	497	5.3
Cane sugar, except refining	43	0	6,645	-16.2	23	15.0
Cane sugar refining	19	5.6	4,721	-4.8	17	0
Beet sugar	40	0	6,749	2.3	35	2.9
Candy and other confectionery products	752	18.2	47,721	6.1	371	16.7
Chocolate and cocoa products	157	-19.9	10,440	-6.0	112	-18.2
Chewing gum	11	-15.4	3,940	-31.6	10	-16.7
Salted and roasted nuts and seeds	98	10.1	8,653	-8.4	72	1.4
Fats and oils	511	-9.1	25,940	-11.1	349	-5.2
Soybean oil mills	96	-11.9	6,859	.4	85	-10.5
Vegetable oil mills, excluding corn, cottonseed, and soybean	27	12.5	763	-16.7	25	4.2
Other fats and oils, not elsewhere classified	98	4.3	7,801	-17.3	71	9.2
Cottonseed oil mills	36	-21.7	2,022	-21.9	32	-17.9
Animal and marine fats and oils	253	-12.2	8,470	-6.2	211	-8.3
Beverages	2,084	.1	139,273	-9.1	704	-4.9
Malt beverages	277	84.7	33,499	4.9	183	56.4
Malt	29	0	1,217	-13.9	23	9.5
Distilled and blended liquors	58	-7.9	6,175	-13.6	43	0
Wines, brandy, and brandy spirits	565	11.9	15,266	5.4	175	-1.1
Bottled and canned soft drinks and carbonated waters	840	-18.2	72,681	-18.4	473	-16.3
Flavoring extracts and syrups, not elsewhere classified	285	8.0	10,359	12.1	157	18.0
Selected miscellaneous food preparations	2,306	16.4	103,031	1.4	716	13.8
Potato chips, corn chips, and similar snacks	382	11.4	33,933	4.7	237	10.7
Macaroni, spaghetti, vermicelli, and noodles	199	-6.6	6,550	-2.2	108	.9
Miscellaneous preparations, not elsewhere classified	1,725	21.1	62,548	.1	610	17.3

See notes at end of table.

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Appendix table 3—Farm-related value-added manufacturing by sector and detailed industry—Continued

Sectors and industries	Establishments[1]		Employees[1]		Counties with at least one establishment in the industry[2]	
	1994	Change, 1989-94	1994	Change, 1989-94	1994	Change, 1989-94
	Number	Percent	Number	Percent	Number	Percent
Tobacco products	117	-16.4	34695	-23.9	74	-12.9
Cigarettes	16	23.1	22800	-29.1	14	40.0
Cigars	28	40.0	2570	10.8	18	28.6
Chewing and smoking tobacco and snuff	27	-6.9	3150	.8	25	-3.8
Tobacco stemming and redrying	44	-33.3	6015	-23.5	31	-26.2
Selected cotton or wool fabric or yarn manufacturing	1,310	13.2	174720	-14.1	502	18.4
Broadwoven fabric mills, cotton	354	24.6	54311	-20.3	217	21.9
Broadwoven fabric mills, wool[6]	100	-13.0	15296	9.9	70	-11.4
Finishers of broadwoven fabrics of cotton	320	56.1	19061	20.4	214	48.6
Yarn spinning mills	395	-6.2	67378	-23.6	185	-6.6
Yarn texturizing, throwing, twisting, and winding mills	141	6.8	18674	7.4	89	7.2
Leather products and leather and sheep-lined clothing[7]	1,812	-6.8	91,610	-21.7	633	5.1
Leather tanning and finishing	354	6.6	16,200	4.8	191	26.5
Boot and shoe cut stock and findings	84	-22.2	3,843	-23.0	55	-5.2
House slippers	30	-16.7	2,789	-34.7	28	-9.7
Men's footwear, except athletic	144	2.1	24,330	-20.3	98	-9.3
Women's footwear, except athletic	111	-19.0	14,786	-39.9	74	-17.8
Footwear, except rubber, not elsewhere classified	90	-17.4	6,067	-27.4	71	-9.0
Leather gloves and mittens	70	-6.7	3,053	6.2	53	-3.6
Women's handbags and purses	178	-31.8	4,479	-48.3	83	-11.7
Other personal leather goods	175	-4.4	5,340	-20.1	115	13.9
Leather goods, not elsewhere classified	403	15.5	8,446	14.6	236	9.3
Leather and sheep-lined clothing	110	-14.7	2,277	-9.5	49	-18.3

[1] Some establishments (and their employees) classified at the sector level could not be classified into the more detailed industries, so the subindustries do not always add to the total sector numbers.

[2] Some counties have more than one type of industry within a sector, so the numbers of counties in the industries often sum to much more than the total number at the sector level.

[3] Also includes canned, frozen, and preserved food specialities, such as canned spaghetti and frozen pizza.

[4] Also includes vegetable sauces, seasonings, and dressings.

[5] For animals, other than cats and dogs, and fowls.

[6] Also includes the dyeing and finishing of broadwoven wool fabrics.

[7] Leather products are classified under the two-digit standard industrial code 31—Leather and Leather Products. Leather and sheep-lined clothing is classified as industrial code 2386 under the two-digit standard industrial code 23—Apparel and Other Finished Products Made from Fabric and Similar Material.

Source: Calculated by ERS using data from 1989 and 1994 County Business Patterns files enhanced by Claritas, Inc.

Appendix table 4—Nonmetro share of farm-related value-added manufacturing by sector and industry, 1994

Sectors and industries	Establishments	Employees
	Percent	
Meat products	39.7	52.3
Red meat packing	50.0	51.9
Sausages and other processed meat products	23.0	23.0
Poultry slaughter and processing	52.2	64.6
Dairy products	33.5	27.8
Creamery butter	44.8	39.3
Natural, processed, and imitation cheese	55.5	49.1
Dry, condensed, and evaporated dairy products	22.7	27.3
Ice cream and frozen deserts	16.3	21.0
Fluid milk	25.0	15.9
Canned, frozen, and preserved fruits and vegetables[1]	25.8	32.8
Canned specialities	19.1	45.5
Canned fruits, vegetables, preserves, jams, and jellies	31.4	29.6
Dried and dehydrated fruits, vegetables, and soup mixes	28.6	31.0
Pickled fruits and vegetables[2]	20.6	21.8
Frozen fruits, fruit juices, and vegetables	36.0	45.2
Frozen specialities, not elsewhere classified	14.7	23.2
Grain mill products	46.6	34.5
Flour and other grain mill products	37.4	27.5
Cereal breakfast foods	25.0	7.8
Rice milling	47.5	60.0
Prepared flour mixes and doughs	16.8	25.4
Wet corn milling	44.8	39.5
Dog and cat food	36.0	31.0
Prepared feeds and feed ingredients[3]	54.6	50.8
Bakery products	10.2	12.8
Bread and other bakery products	9.7	10.8
Cookies and crackers	11.0	17.7
Frozen bakery products, except bread	7.8	17.2
Sugar and confectionery products	20.9	21.1
Cane sugar, except refining	53.5	42.3
Cane sugar refining	21.1	4.4
Beet sugar	60.0	57.4
Candy and other confectionery products	18.2	18.5
Chocolate and cocoa products	10.8	3.3
Chewing gum	9.1	14.1
Salted and roasted nuts and seeds	30.6	25.6
Fats and oils	36.4	33.5
Soybean oil mills	45.8	44.0
Vegetable oil mills, excluding corn, cottonseed, and soybean	22.2	38.1
Other fats and oils, not elsewhere classified	15.3	13.1
Cottonseed oil mills	47.2	39.7
Animal and marine fats and oils	41.1	42.0
Beverages	20.5	11.8
Malt beverages	21.7	5.9
Malt	37.9	43.3
Distilled and blended liquors	29.3	30.1
Wines, brandy, and brandy spirits	18.6	10.5
Bottled and canned soft drinks and carbonated waters	24.4	13.2
Flavoring extracts and syrups, not elsewhere classified	7.7	8.6
Selected miscellaneous food preparations	16.5	13.1
Potato chips, corn chips, and similar snacks	20.7	14.4
Macaroni, spaghetti, vermicelli, and noodles	10.1	9.3
Miscellaneous preparations, not elsewhere classified	16.3	12.7

See notes at end of table.

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Appendix table 4—Nonmetro share of farm-related value-added manufacturing by sector and industry, 1994—Continued

Sectors and industries	Establishments	Employees
	Percent	
Tobacco products	18.8	12.8
Cigarettes	18.8	5.6
Cigars	21.4	35.1
Chewing and smoking tobacco and snuff	11.1	4.5
Tobacco stemming and redrying	22.7	35.3
Selected cotton or wool fabric or yarn manufacturing	33.3	51.9
Broadwoven fabric mills, cotton	29.1	50.7
Broadwoven fabric mills, wool[4]	37.0	75.7
Finishers of broadwoven fabrics of cotton	20.3	32.8
Yarn spinning mills	45.6	53.3
Yarn texturizing, throwing, twisting, and winding mills	36.2	50.6
Leather products and leather and sheep-lined clothing[5]	26.9	39.7
Leather tanning and finishing	31.4	35.4
Boot and shoe cut stock and findings	27.4	57.7
House slippers	33.3	40.4
Men's footwear, except athletic	34.7	42.8
Women's footwear, except athletic	29.7	53.2
Footwear, except rubber, not elsewhere classified	32.2	57.8
Leather gloves and mittens	65.7	69.9
Women's handbags and purses	14.0	16.2
Personal leather goods, except women's handbags and purses	17.7	14.3
Leather goods, not elsewhere classified	26.6	21.3
Leather and sheep-lined clothing	7.3	10.2

[1] Also includes canned, frozen, and preserved food specialities, such as canned spaghetti and frozen pizza.

[2] Also includes vegetable sauces, seasonings, and dressings.

[3] For animals, other than cats and dogs, and fowls.

[4] Also includes the dyeing and finishing of broadwoven wool fabrics.

[5] Leather products are classified under the two-digit standard industrial code 31—Leather and Leather Products. Leather and sheep-lined clothing is classified as industrial code 2386 under the two-digit standard industrial code 23—Apparel and Other Finished Products Made from Fabric and Similar Material.

Source: Calculated by ERS using data from 1989 and 1994 County Business Patterns files enhanced by Claritas, Inc.

Appendix table 5—Forest-related value-added manufacturing by sector and industry

Sectors and industries	Establishments[1]		Employees[1]		Counties with at least one establishment in the industry[2]	
	1994	Change, 1989-94	1994	Change, 1989-94	1994	Change, 1989-94
	Number	Percent	Number	Percent	Number	Percent
Lumber and wood products, except furniture	37,389	13.3	694,473	-2.7	2,577	3.6
Logging	13,962	17.2	84,634	-2.1	1,719	8.9
Sawmills and planing mills	5,744	5.9	145,178	-3.2	1,756	3.6
Hardwood dimension and flooring mills	808	16.4	31,079	3.7	423	11.0
Special product sawmills, not elsewhere classified	177	-14.1	1,734	-30.2	96	-4.0
Millwork	3,286	24.7	89,019	-4.6	1,011	18.1
Wood kitchen cabinets	4,475	41.3	66,181	.5	1,147	28.0
Hardwood veneer and plywood	312	3.7	21,001	-2.6	209	6.6
Softwood veneer and plywood	186	-13.9	30,237	-11.6	128	-4.5
Structural wood members, not elsewhere classified	940	17.5	28,753	18.9	612	19.8
Nailed and lock corner wood boxes and shook	299	5.7	5,163	-11.1	200	.0
Wood pallets and skids	2,009	22.9	31,944	10.1	1,028	11.3
Wood containers, not elsewhere classified	234	20.6	4,945	-12.5	185	18.6
Mobile homes	300	-12.0	46,164	13.1	165	-12.2
Prefabricated wood buildings and components	632	-2.0	18,970	-19.1	434	-1.4
Wood preserving	474	-6.1	11,259	-11.7	375	-5.3
Reconstituted wood products	300	11.9	24,081	11.0	230	10.6
Wood products, not elsewhere classified	2,758	4.0	52,775	-11.6	1,117	5.8
Paper and allied products	6,467	2.8	622,410	-1.5	1,146	3.2
Pulp mills	52	13.0	13,737	-4.2	45	7.1
Paper mills	316	.0	123,333	-7.2	204	2.5
Paperboard mills	218	-1.4	52,483	2.2	173	1.8
Setup paperboard boxes	153	-16.4	6,109	-23.4	99	-13.9
Corrugated and solid fiber boxes	1,617	1.4	114,450	3.8	571	4.4
Fiber cans, tubes, drums, and similar products	301	6.0	12,814	-1.3	204	7.4
Sanitary food containers, except folding	89	4.7	15,417	3.2	76	4.1
Folding paperboard boxes, including sanitary	580	.5	52,378	.8	265	6.0
Packaging paper and plastics film, coated and laminated	211	50.7	17,685	8.6	143	49.0
Coated and laminated paper, not elsewhere classified	458	11.2	32,909	2.1	236	17.4
Plastics, foil, and coated paper bags	516	10.5	39,730	2.4	251	10.6
Uncoated paper and multiwall bags	144	5.9	18,494	.1	116	11.5
Die-cut paper and paperboard and cardboard	394	5.9	16,877	-.7	187	-5.6
Sanitary paper products	155	15.7	39,655	1.9	113	18.9
Envelopes	266	-4.7	24,034	-14.7	133	4.7
Stationery, tablets, and related products	163	-7.9	9,232	-21.0	105	-7.9
Converted paper and paperboard products, not elsewhere classified	732	5.6	32,092	4.4	372	9.1
Selected wood furniture manufacturing	6,502	8.3	277,008	-5.1	1,262	8.2
Wood household furniture, except upholstered	2,770	7.2	125,879	-5.8	902	5.9
Wood household furniture, upholstered	1,151	10.6	83,232	2.4	342	2.4
Wood television, radio, phonograph, and sewing machine cabinets	105	41.9	4,440	-12.8	84	42.4
Wood office furniture	599	-5.8	23,620	-24.6	291	7.8
Wood office and store fixtures, partitions, shelving, and lockers	1,877	12.3	39,837	-1.7	630	23.0

See notes at end of table.

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Appendix table 5—Forest-related value-added manufacturing by sector and industry—Continued

Sectors and industries	Establishments[1] 1994	Establishments[1] Change, 1989-94	Employees[1] 1994	Employees[1] Change, 1989-94	Counties with at least one establishment in the industry[2] 1994	Counties with at least one establishment in the industry[2] Change, 1989-94
	Number	Percent	Number	Percent	Number	Percent
Selected printing, publishing, and allied industries	37,919	10.0	698,895	-1.6	2,205	4.9
Book printing	615	21.3	48,218	3.5	310	21.6
Commercial printing	35,924	10.1	568,356	-.4	2,171	4.6
Manifold business forms	855	3.3	45,642	-13.5	396	2.9
Blankbooks, looseleaf binders and devices	525	8.5	36,679	-9.4	210	6.1
Selected chemicals and allied products	92	9.5	9,356	-29.1	72	1.4
Cellulosic manmade products	13	44.4	6,458	-38.1	11	37.5
Gum and wood chemicals	79	5.3	2,898	4.5	64	.0

[1] Some establishments (and their employees) classified at the sector level could not be classified into the more detailed industries, so the industries do not add to the total sector numbers.

[2] Some counties have more than one type of detailed industry within a sector, so the numbers of counties in the industries often sum to much more than the total number at the sector level.

Source: Calculated by ERS using data from 1989 and 1994 County Business Patterns files enhanced by Claritas, Inc.

Appendix table 6—Nonmetro share of forest-related value-added manufacturing by sector and industry, 1994

Sectors and industries	Establishments	Employees
	Percent	
Lumber and wood products, except furniture	55.5	55.7
Logging	78.5	80.3
Sawmills and planing mills	69.6	73.6
Hardwood dimension and flooring mills	47.6	60.1
Special product sawmills, not elsewhere classified	80.2	73.1
Millwork	22.9	40.2
Wood kitchen cabinets	19.7	24.5
Hardwood veneer and plywood	37.8	50.2
Softwood veneer and plywood	59.7	75.3
Structural wood members, not elsewhere classified	36.1	29.2
Nailed and lock corner wood boxes and shook	19.4	24.1
Wood pallets and skids	44.7	44.9
Wood containers, not elsewhere classified	32.1	58.2
Mobile homes	49.7	54.9
Prefabricated wood buildings and components	42.4	45.2
Wood preserving	48.7	49.7
Reconstituted wood products	44.0	64.1
Wood products, not elsewhere classified	36.5	47.0
Paper and allied products	16.3	27.8
Pulp mills	55.8	80.7
Paper mills	35.1	48.6
Paperboard mills	31.2	46.4
Setup paperboard boxes	14.4	16.8
Corrugated and solid fiber boxes	14.9	14.9
Fiber cans, tubes, drums, and similar products	18.9	23.0
Sanitary food containers, except folding	13.5	19.9
Folding paperboard boxes, including sanitary	10.7	13.8
Packaging paper and plastics film, coated and laminated	16.1	13.3
Coated and laminated paper, not elsewhere classified	8.7	17.2
Plastics, foil, and coated paper bags	13.2	18.7
Uncoated paper and multiwall bags	25.0	28.2
Die-cut paper and paperboard and cardboard	12.9	19.9
Sanitary paper products	26.5	27.4
Envelopes	7.9	10.3
Stationery, tablets, and related products	14.7	17.8
Converted paper and paperboard products, not elsewhere classified	16.1	22.9
Selected wood furniture manufacturing	22.3	38.0
Wood household furniture, except upholstered	28.4	39.3
Wood household furniture, upholstered	27.0	47.6
Wood television, radio, phonograph, and sewing machine cabinets	20.0	56.1
Wood office furniture	17.2	32.1
Wood office and store fixtures, partitions, shelving, and lockers	12.1	15.3
Selected printing, publishing, and allied industries	12.3	14.8
Book printing	13.0	25.4
Commercial printing	12.2	13.5
Manifold business forms	16.8	25.5
Blankbooks, looseleaf binders and devices	9.3	8.4
Selected chemicals and allied products	53.3	45.1
Cellulosic manmade products	30.8	41.0
Gum and wood chemicals	57.0	54.2

Source: Calculated by ERS using data from the 1994 County Business Patterns file enhanced by Claritas, Inc.

Latest Trends in Nonfarm Jobs and Earnings

In the 1996 Rural Industry issue of *RCaT*, we reported changes in nonfarm jobs and earnings during 1992-93. And, in the 1996 Socioeconomic Conditions issue of *RCaT*, we reported changes in earnings during 1993-94. With the release of 1995 data by the Bureau of Economic Analysis in September 1997, we now can publish the following estimates of changes in nonfarm jobs and earnings during 1994-95.

Jobs

The 1995 estimates show nonfarm jobs increasing at about the same rate in both nonmetro and metro areas, 2.3 and 2.2 percent (app. table 7). That is about the same rate of job growth that nonmetro areas have averaged since the 1990-91 recession ended, 2.2 percent. Metro job growth picked up in 1995 compared with its annual average growth of 1.7 percent during 1991-95.

During 1994-95, agricultural services, construction, wholesale and retail trade, and services added jobs at a faster than average rate in both nonmetro and metro areas. Manufacturing, retail trade, and both State and local governments added jobs at slightly faster rates in nonmetro than in metro areas.

By region, job growth in New England and the Mideast continues to lag growth in the other regions, in both nonmetro and metro areas. The Rocky Mountain region continues to lead all other regions in both areas.

Earnings per Nonfarm Job

Real earnings per nonfarm job increased during 1994-95, 0.8 percent in nonmetro areas and 1.4 percent in metro areas (app. table 8). The nonmetro increase was about the same as annual average nonmetro earnings growth since the last recession, but the metro increase in earnings per nonfarm job picked up in 1995 along with metro job growth.

Nonmetro construction jobs averaged lower real earnings in 1995 than in 1994, while all other nonmetro industries averaged higher earnings in 1995. The fastest earning growth was in finance, insurance, and real estate followed by Federal military jobs. The large drop in Federal military jobs must have been more concentrated among lower ranking personnel, raising the average earnings of the remaining personnel.

Real nonfarm earnings per job increased in both nonmetro and metro areas in all BEA regions. In all regions, metro earnings growth exceeded nonmetro growth. Among nonmetro regions, earnings growth was fastest in the Plains and Southeast. Among metro regions, earnings growth was fastest in the Rocky Mountain and New England regions.

Trends in Earnings per Nonfarm Job, 1969-95

When BEA releases a new year of data, it also revises the previous 2 years' estimates. The 1993 and 1994 earnings shown in appendix table 9 do not match those published in earlier issues of RCAT because of the BEA revisions and because we have now converted those years' earnings to 1995 dollars.

As the earnings ratios shown in appendix table 3 indicate, nonmetro earnings have not kept pace with metro earnings since 1979. Nonmetro earnings did narrow the gap slightly during 1993 and 1994, but again, in 1995 metro earnings grew faster than nonmetro earnings. The gap (in 1995 dollars) between metro and nonmetro earnings was at its widest in 1992, $8,553, fell to $8,109 by 1994, but rose to $8,364 by 1995. *[Linda M. Ghelfi, 202-694-5351, lghelfi@econ.ag.gov]*

Appendix table 7—Nonfarm jobs by industry and BEA region, 1995

Item	Nonmetro	Metro	Change from previous year, 1994-95 Nonmetro	Change from previous year, 1994-95 Metro	Annual average change since recession, 1991-95 Nonmetro	Annual average change since recession, 1991-95 Metro
	Thousands		Percent			
Nonfarm	24,669	121,638	2.3	2.2	2.2	1.7
Agricultural services, forestry, fisheries, other[1]	469	1,353	4.6	4.9	4.5	4.9
Mining	376	546	-1.6	-2.0	-2.7	-2.5
Construction	1,422	6,228	2.9	3.4	4.0	2.7
Manufacturing	4,439	14,787	1.5	.9	1.9	-.2
Transportation and public utilities	1,066	6,014	1.7	2.2	1.6	1.9
Wholesale trade	850	6,104	3.0	3.8	1.6	1.2
Retail trade	4,526	20,655	3.7	3.2	3.3	2.6
Finance, insurance, and real estate	1,206	9,883	-.7	-1.6	.7	0
Services	6,017	38,757	3.5	3.7	2.8	3.2
Government and government enterprises[2]	4,298	17,312	.5	-.2	1.0	.3
Federal civilian	373	2,603	-.8	-1.7	-1.2	-1.4
Federal military	389	1,845	-7.6	-7.2	-4.4	-4.4
State and local	3,536	12,864	1.6	1.2	2.0	1.4
State	981	3,768	1.8	1.2	1.7	1.5
Local	2,556	9,095	1.6	1.3	2.0	1.3
Nonfarm jobs by BEA region:						
New England	1,113	6,900	1.9	1.9	1.6	1.4
Mideast	1,748	22,704	1.2	.8	.9	.6
Great Lakes	4,209	20,280	2.5	2.5	2.4	2.0
Plains	3,800	7,240	2.2	2.4	2.1	2.3
Southeast	8,238	26,408	2.2	2.7	2.4	2.7
Southwest	2,277	12,831	2.6	3.3	1.9	2.9
Rocky Mountain	1,468	3,463	3.1	3.5	3.6	3.7
Far West	1,815	21,811	2.3	2.0	1.9	.6

[1] Other are employees of foreign embassies working in the United States.

[2] Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain their own separate accounts—for example, the Postal Service.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 8—Earnings per nonfarm job by industry and BEA region, 1995

	Nonmetro	Metro	Change from previous year, 1994-95		Average annual change since the recession, 1991-95	
			Nonmetro	Metro	Nonmetro	Metro
	Dollars		Percent			
Earnings per nonfarm job	22,314	30,678	0.8	1.4	0.9	0.9
By industry:						
Agricultural services, forestry, fisheries, other[1]	14,455	16,305	.6	-.4	-1.3	-2.0
Mining	37,222	43,230	1.3	3.2	.5	1.2
Construction	24,071	32,290	-2.7	-1.6	-.1	-.5
Manufacturing	30,555	44,705	.5	1.5	1.3	1.5
Transportation and public utilities	34,878	43,308	2.3	.9	1.3	1.0
Wholesale trade	27,205	41,098	1.5	1.5	1.4	1.1
Retail trade	13,382	16,431	.3	.4	-.1	-.2
Finance, insurance, and real estate	15,691	30,923	3.9	5.6	4.7	5.0
Services	18,653	28,414	2.4	2.2	2.0	.9
Government and government enterprises[2]	25,077	32,711	1.1	1.1	.6	.9
Federal civilian	38,581	45,453	.3	.4	1.8	2.0
Federal military	16,764	21,982	3.5	5.0	1.1	1.3
State and local	24,568	31,671	.9	.8	.3	.4
State	27,327	31,748	.3	.8	-.3	-.0
Local	23,509	31,639	1.1	.8	.6	.5
By BEA region:						
New England	23,475	32,862	.4	1.9	.1	.7
Mideast	23,726	34,949	.3	1.5	.4	1.0
Great Lakes	23,306	31,124	.4	1.2	1.3	1.4
Plains	20,625	28,522	1.4	1.7	1.2	1.0
Southeast	22,181	27,310	1.1	1.6	1.1	1.0
Southwest	21,022	28,800	.9	1.7	.6	.9
Rocky Mountain	21,432	27,056	.7	2.2	.9	1.4
Far West	24,410	31,600	.5	1.3	.6	.8

[1] Other are employees of foreign embassies working in the United States.

[2] Government enterprises are government agencies that cover a substantial portion of their operating costs by selling goods and services to the public and that maintain their own separate accounts—for example, the Postal Service.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 9—Real earnings per nonfarm job, 1969-77

Item	1969	1970	1971	1972	1973	1974	1975	1976	1977
					1995 dollars				
United States	26,274	26,603	27,054	27,856	28,003	27,271	27,167	27,955	28,151
Nonmetro	20,874	21,173	21,593	22,264	22,590	22,248	22,421	23,337	23,363
Metro	27,413	27,750	28,221	29,059	29,162	28,347	28,189	28,964	29,197
Earnings gap[1]	6,539	6,576	6,628	6,795	6,573	6,099	5,768	5,627	5,833
					Percent				
Earnings ratio[2]	76.1	76.3	76.5	76.6	77.5	78.5	79.5	80.6	80.0
Change from previous year:									
Nonmetro	NA	1.4	2.0	3.1	1.5	-1.5	.8	4.1	.1
Metro	NA	1.2	1.7	3.0	0.4	-2.8	-.6	2.7	.8
	1978	1979	1980	1981	1982	1983	1984	1985	1986
					1995 dollars				
United States	28,418	28,200	27,516	27,301	27,157	27,373	27,939	28,155	28,376
Nonmetro	23,713	23,594	22,896	22,583	22,194	22,253	22,727	22,680	22,567
Metro	29,438	29,189	28,496	28,296	28,197	28,439	29,009	29,258	29,528
Earnings gap[1]	5,725	5,595	5,600	5,713	6,003	6,186	6,282	6,579	6,962
					Percent				
Earnings ratio[2]	80.6	80.8	80.3	79.8	78.7	78.2	78.3	77.5	76.4
Change from previous year:									
Nonmetro	1.5	-0.5	-3.0	-1.4	-1.7	.3	2.1	-.2	-.5
Metro	.8	-.8	-2.4	-.7	-.4	.9	2.0	.9	.9
	1987	1988	1989	1990	1991	1992	1993	1994	1995
					1995 dollars				
United States	28,616	28,948	28,520	28,433	28,216	28,970	28,850	28,875	29,268
Nonmetro	22,344	22,415	22,043	21,712	21,512	21,854	21,810	22,133	22,314
Metro	29,855	30,229	29,791	29,759	29,552	30,407	30,283	30,242	30,678
Earnings gap[1]	7,511	7,814	7,748	8,047	8,040	8,553	8,473	8,109	8,364
					Percent				
Earnings ratio[2]	74.8	74.2	74.0	73.0	72.8	71.9	72.0	73.2	72.7
Change from previous year:									
Nonmetro	-1.0	.3	-1.7	-1.5	-.9	1.6	-.2	1.5	.8
Metro	1.1	1.3	-1.4	-.1	-.7	2.9	-.4	-.1	1.4

NA = Not applicable. No previous year in the data set from which to compute change.

[1] Earnings gap is the number of dollars by which metro earnings per nonfarm job exceed nonmetro earnings per nonfarm job.

[2] Earnings ratio is the percentage nonmetro earnings per nonfarm job are of metro earnings per nonfarm job.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Two Methods of Measuring Farm-Linked Employment

The Economic Research Service uses two methods to measure economywide employment related to agriculture. Both methods are widely respected, and, while they provide different employment totals, both point to the continued importance of farm-related jobs in an era when direct farm employment has declined to modest levels. Both methods also recognize the wide-ranging influence of farm-related activity in the U.S. economy beyond the farm gate.

Farm and farm-related (FFR) employment estimates are produced by adding up the number of jobs in industries that have been identified as related to farming. ERS analysts identified FFR industries by choosing those where 50 percent or more of the work force is employed in providing goods and services necessary to satisfy the final demand for agricultural products. The number of full- and part-time jobs in these sectors reported in U.S. Bureau of the Census's County Business Patterns is summed to obtain an estimate of FFR employment. Since the County Business Patterns data are published for counties, FFR employment can be reported for States, regions, or other geographical units.

Food and Fiber System (FFS) employment estimates are developed using a national input-output model that describes input use and factor payments for each sector of the economy. The model is used to estimate the amount of employment in each sector needed to support the final demands for agricultural products. Thus, this measure may include jobs in all sectors of the economy, even those where the link to agriculture is weak. However, unlike the FFR measure, the FFS estimates do not count all jobs in a particular sector; only the jobs needed to support demand for agricultural products are counted.

The two methods each have strengths and weaknesses. The FFS estimates are based on a method that explicitly models the interrelationships between various sectors of the economy. The FFS estimates have a close relationship to the U.S. Department of Commerce's National Income and Product Accounts. However, the estimates are not available below the State level. The FFR estimates have the advantage of rich geographic detail that can provide valuable information about the importance of agriculture in various counties or multicounty regions.

Appendix table 10—Share of total State employment by farm and farm-related industry, 1994

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
United States	21,958,262	15.3	2.4	0.3	2.2	10.0	0.4
Alabama	410,429	18.6	3.0	.4	5.3	9.5	.5
Alaska	53,886	15.1	3.7	.1	2.3	9.0	—
Arizona	281,893	13.5	1.3	.1	.6	11.4	.1
Arkansas	270,545	20.8	5.0	.6	5.5	8.8	.9
California	2,326,836	14.2	2.0	.2	2.0	9.8	.3
Colorado	333,023	14.4	1.9	.2	1.4	10.7	.1
Connecticut	215,827	11.0	.7	.1	.8	9.1	.3
Delaware	57,845	13.6	1.2	.2	2.3	9.7	.3
Florida	1,110,856	15.5	1.9	.2	1.1	12.0	.2
Georgia	702,657	17.6	1.9	.3	4.4	10.3	.7
Hawaii	112,135	15.4	1.9	.1	1.5	11.9	—
Idaho	133,633	21.3	6.3	1.0	3.2	10.3	.4
Illinois	930,675	14.0	1.8	.6	1.7	9.4	.5
Indiana	498,024	15.4	2.7	.4	1.5	10.3	.5
Iowa	402,031	23.4	7.6	1.7	3.9	9.8	.5
Kansas	296,598	18.9	5.4	.9	2.7	9.6	.4
Kentucky	403,992	20.3	5.9	.3	3.2	10.3	.5
Louisiana	328,002	15.3	2.3	.4	1.7	10.4	.5
Maine	113,599	16.9	2.7	.1	3.3	10.5	.4
Maryland	335,801	12.5	1.1	.1	1.1	10.0	.2
Massachusetts	453,776	12.3	.5	.1	1.4	9.9	.4
Michigan	677,606	13.7	1.8	.1	1.0	10.5	.3
Minnesota	473,349	16.3	4.0	.6	1.9	9.4	.4
Mississippi	248,545	19.1	4.2	.5	4.8	9.0	.5
Missouri	526,621	17.1	4.2	.5	2.4	9.5	.4
Montana	90,470	19.6	6.4	.6	.9	11.5	.2
Nebraska	233,972	22.5	6.8	1.6	4.0	9.9	.2
Nevada	88,386	10.4	.8	.1	.4	9.0	.1
New Hampshire	89,719	13.7	.9	.1	1.3	11.0	.4
New Jersey	521,818	11.9	.5	.1	1.6	9.2	.5
New Mexico	126,483	15.0	2.8	.2	.8	11.0	.3
New York	1,161,883	12.1	.9	.1	1.7	9.2	.3
North Carolina	841,550	20.2	2.4	.3	7.3	9.6	.6
North Dakota	94,595	24.0	10.2	1.7	2.1	10.0	—
Ohio	851,218	14.0	1.8	.2	1.1	10.3	.5
Oklahoma	298,834	17.2	5.1	.4	1.6	9.9	.2
Oregon	301,306	17.1	4.4	.3	1.6	10.4	.3
Pennsylvania	925,222	14.5	1.4	.2	2.6	10.0	.4
Rhode Island	69,361	13.1	.5	.1	1.9	10.1	.6
South Carolina	376,421	19.0	1.9	.2	5.8	10.5	.7

See notes at end of table.

—Continued

Appendix table 10—Share of total State employment by farm and farm-related industry, 1994—Continued

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
South Dakota	104,479	23.6	9.3	1.1	2.8	10.2	.3
Tennessee	539,014	18.1	3.5	.3	3.9	9.9	.6
Texas	1,543,581	15.4	2.9	.3	1.7	10.3	.3
Utah	148,820	13.9	1.9	.2	1.6	10.0	.3
Vermont	59,050	16.7	3.2	.3	1.7	11.4	.3
Virginia	555,594	14.8	1.9	.2	2.8	9.4	.4
Washington	490,857	16.4	3.5	.3	1.6	10.7	.3
West Virginia	117,335	14.7	3.0	.2	1.3	9.9	.2
Wisconsin	540,366	18.1	4.0	.7	2.5	10.2	.8
Wyoming	48,959	16.9	4.6	4	.5	10.3	1.0

— = Less than 0.1 percent

Source: Calculated by ERS using Department of Commerce data.

Appendix table 11—Share of total nonmetro employment by farm and farm-related industry, 1994

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
United States	6,024,299	23.9	7.9	0.8	4.6	10.1	0.5
Alabama	179,820	29.8	6.4	.9	12.7	9.0	.9
Alaska	35,527	19.6	6.6	.2	4.1	8.7	—
Arizona	41,560	17.2	2.3	.2	.4	14.2	.1
Arkansas	160,074	25.8	8.0	1.0	7.4	8.8	.6
California	94,911	22.5	8.2	.6	1.6	11.9	.2
Colorado	89,703	22.4	6.8	.6	1.9	13.1	.1
Connecticut	19,195	15.0	1.7	.2	2.4	10.1	.6
Delaware	17,090	27.4	3.8	.7	10.2	12.8	—
Florida	90,062	24.0	8.0	.7	2.0	12.9	.4
Georgia	280,554	26.0	5.1	.7	9.9	9.5	.9
Hawaii	39,337	22.8	6.0	.2	2.6	14.2	—
Idaho	98,714	24.6	8.6	1.3	3.6	10.6	.5
Illinois	201,054	22.5	8.2	1.4	2.6	9.7	.6
Indiana	162,067	19.9	6.3	.8	2.4	9.6	.9
Iowa	258,951	29.3	12.6	2.2	4.6	9.2	.5
Kansas	176,854	26.6	10.9	1.5	4.6	9.3	.3
Kentucky	224,602	25.7	10.3	.5	4.8	9.6	.4
Louisiana	85,523	21.1	7.0	1.0	3.5	8.8	.8
Maine	63,701	17.7	3.8	.2	3.0	10.3	.4
Maryland	37,923	20.8	4.4	.4	3.6	12.0	.4
Massachusetts	7,140	15.4	2.6	.1	1.4	10.9	.4
Michigan	137,445	19.3	5.4	.3	1.1	11.9	.5
Minnesota	208,125	27.0	11.0	1.5	4.1	10.0	.5
Mississippi	187,220	22.6	5.9	.7	6.6	8.8	.6
Missouri	224,059	27.0	11.8	1.0	4.6	9.3	.3
Montana	71,257	20.8	8.0	.5	.8	11.2	.3
Nebraska	149,689	32.6	14.1	2.8	5.6	10.0	.1
Nevada	14,550	12.5	3.4	.3	.2	8.5	.1
New Hampshire	35,784	14.1	1.4	.1	1.4	10.8	.4
New Jersey	NA						
New Mexico	56,524	18.5	5.6	.3	.9	11.2	.5
New York	116,693	17.2	4.2	.4	1.7	10.6	.4
North Carolina	323,500	28.1	5.0	.6	12.2	9.7	.7
North Dakota	63,528	31.0	17.1	2.0	2.6	9.2	—
Ohio	193,790	20.0	5.9	.7	2.5	10.1	.9
Oklahoma	148,879	25.1	11.7	.7	3.1	9.5	.2
Oregon	103,897	22.5	8.0	.6	2.1	11.4	.4
Pennsylvania	156,745	19.7	3.9	.4	4.3	10.9	.4
Rhode Island	5,852	13.7	1.1	—	.3	12.1	—

See notes at end of table.

—Continued

Appendix table 11—Share of total nonmetro employment by farm and farm-related industry, 1994—Continued

State	Total farm and farm-related industries	Total farm and farm-related industries	Farm production, agricultural services, forestry, and fishing	Agricultural inputs	Agricultural processing and marketing	Agricultural wholesale and retail trade	Indirect agribusiness
	Jobs	Percentage of total employment					
South Carolina	126,894	26.2	3.8	.3	10.9	10.3	.8
South Dakota	74,991	27.7	13.8	1.4	2.8	9.6	.1
Tennessee	213,779	26.3	8.4	.5	7.8	8.9	.8
Texas	363,491	28.2	14.1	.9	3.3	9.6	.3
Utah	43,198	21.4	6.5	.5	2.6	11.4	.5
Vermont	40,029	17.3	3.7	.3	1.5	11.6	.2
Virginia	169,454	24.9	6.1	.5	8.3	9.2	.9
Washington	113,255	26.4	10.4	.9	2.4	12.3	.5
West Virginia	65,013	15.7	4.5	.2	1.6	9.3	.1
Wisconsin	214,251	25.4	9.4	1.3	3.3	10.6	.8
Wyoming	38,045	19.1	5.9	.5	.7	10.5	1.5

— = Less than 0.1 percent
NA = Not applicable. New Jersey has no nonmetro counties.
Source: Calculated by ERS using Department of Commerce data.

Appendix table 12—The Food and Fiber System and the domestic economy, 1987-96

Item	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Employment:						Millions of jobs				
Total food and fiber	22.3	23.1	23.2	23.1	22.7	22.0	22.5	22.7	23.1	22.7
						Percent				
Share of domestic labor force	18.6	18.9	18.7	18.4	18.0	17.2	17.4	17.3	17.5	17.0
						Millions of jobs				
Farm sector	1.9	2.2	2.1	1.9	2.0	1.7	1.9	1.6	1.7	1.6
Nonfarm sectors	20.4	20.9	21.1	21.2	20.7	20.3	20.6	21.1	21.4	21.1
Food processing	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.4	1.4	1.3
Manufacturing	2.7	2.8	2.9	2.8	2.7	2.7	2.6	2.7	2.6	2.6
Transportation, trade, and retailing	6.7	6.8	6.9	6.9	6.8	6.7	6.7	7.0	7.1	7.1
Eating	6.4	6.6	6.6	6.7	6.6	6.4	6.7	6.9	7.1	6.9
All other	3.0	3.1	3.1	3.2	3.1	3.0	3.1	3.1	3.2	3.2
Total domestic economy	119.9	121.7	123.9	125.8	126.3	128.1	129.2	131.1	132.3	133.9
Value added by activity:						Billion dollars				
Total food and fiber	709.1	777.1	813.0	817.0	801.3	839.5	857.0	962.7	971.3	997.7
						Percent				
Share of domestic economy	15.1	15.4	14.9	14.2	13.5	13.4	13.1	13.9	13.4	13.1
						Billion dollars				
Farm sector	52.7	57.6	60.4	62.2	57.4	66.1	51.1	73.6	50.7	71.3
Nonfarm sectors	656.4	719.5	752.6	755.8	743.9	773.4	805.9	889.1	920.6	926.4
Food processing	91.7	100.7	100.8	100.6	96.2	96.4	100.8	109.1	114.7	108.0
Manufacturing	119.9	133.5	136.5	134.0	127.1	132.7	136.1	154.9	158.3	161.3
Transportation, trade, and retailing	214.3	230.5	246.0	244.6	246.9	260.9	273.0	301.6	313.6	317.0
Eating	92.1	101.8	107.3	107.8	108.3	113.8	122.2	135.2	142.3	139.2
All other	138.4	152.0	161.1	167.8	165.4	171.7	173.7	188.3	191.7	201.0
Total domestic economy	4,692.3	5,049.6	5,438.7	5,743.8	5,916.7	6,244.4	6,558.1	6,947.0	7,265.4	7,636.0

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, and Bureau of the Census.

Economic Activity Triggered by Agricultural Trade

Estimates of economic activity related to agricultural exports show that exports make an important contribution to the farm sector and to the U.S economy as a whole. In 1996, the United States exported $60.4 billion of agricultural products, up from $55.8 billion in 1995. Those exports support jobs on farms, in food processing and other manufacturing plants, and in the transportation and trade sectors. Agricultural exports generated an estimated 859,000 jobs in 1996, of which 292,000 were on farms. The impact of agricultural exports on the U.S. economy is far-reaching. Every dollar of exports generated an additional $1.32 in economic activity in supporting sectors.

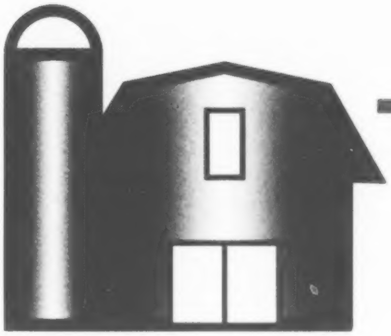
Imports of agricultural products were worth $33.6 billion in 1996, up from $30.0 billion in 1995. Since agricultural exports exceeded imports, the United States had a positive trade balance in agricultural products of $26.8 billion. About $8.2 billion of imports were such commodities as bananas, coffee, and tea that do not compete with U.S. products. The remaining $23.7 billion is comprised of imports, such as meat, dairy products, fruits, nuts, vegetables, sugar, and wines that compete with U.S. products.

Processed agricultural products have more extensive impacts on the U.S. economy than exports of bulk unprocessed commodities. Each dollar of nonbulk agricultural exports (fresh fruits and vegetables and "value-added" processed products) generates an additional $1.70 in supporting activity, compared with $0.85 for each dollar of bulk exports (grains, oilseeds, and cotton). Every $1 billion of nonbulk exports supports 16,800 U.S. jobs, compared with 11,100 for bulk exports. Nonbulk products account for most of the economic activity generated by agricultural exports. They account for 558,000 of the 859,000 jobs attributed to agricultural exports. *[William Edmondson, 202-694-5374, wedmonds@econ.ag.gov]*

Appendix table 13—U.S. economic activity triggered by agricultural trade

Item	1994 total	1995 total	1996 Total	1996 bulk	1996 Other
			Billion dollars		
Economic activity generated by agricultural exports	109.5	132.9	139.9	50.3	89.6
Exports	45.7	55.8	60.4	27.2	33.2
Imports	26.8	30.0	33.6	1.7	31.9
Competitive	20.1	21.6	25.4	1.7	23.7
Complementary	6.7	8.4	8.2	0.0	8.2
Trade balance	18.9	25.8	26.8	25.4	1.4
Supporting activities	63.8	77.1	79.5	23.1	56.4
Farm	16.9	20.0	21.9	2.7	19.2
Food processing	5.6	6.3	6.7	.3	6.4
Other manufacturing	14.2	15.5	15.5	5.5	10.0
Trade and transportation	8.3	9.8	9.7	3.0	6.7
Other services	18.8	25.5	25.6	11.6	14.0
			Percent		
Nonfarm share	74	74	73	88	66
				Dollars	
Multiplier (business activity generated by $1 of exports)	1.39	1.38	1.32	.85	1.70
			1,000 jobs		
Employment due to exports:					
Total	791	895	859	301	558
Farm	305	333	292	103	189
Number of jobs per $1 billion of exports	17.3	16.0	14.2	11.1	16.8
			Percent		
Percent of farm workforce	9	10	8	3	5
			1,000 jobs		
Nonfarm	485	562	566	197	369
Food processing	78	84	86	1	85
Other manufacturing	71	71	70	21	49
Trade and transportation	178	200	196	81	115
Other services	158	207	214	94	120
			Billion dollars		
Domestic equivalent of the economic activity generated by competitive imports	49.7	53.6	62.8	3.5	59.3
Net business surplus of agricultural trade	53.1	70.9	68.9	46.8	22.1
Nonfarm, nonfood processing sectors:					
Net direct benefit from exports	4.9	6.7	6.8	4.9	1.9
Net increased output from exports	41.3	47.8	41.6	26.2	15.4
			Percent		
Farm share of income generated by exports	31	32	34	45	26
Trade and transportation share of total income from exports	21.8	21.7	21.2	21.3	21.2

Source: Calculated by ERS from supporting ERS economic models using data from the Bureau of Economic Analysis, Bureau of Labor Statistics, and Bureau of the Census.



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Census of Agriculture Publications, 1992

Agricultural Atlas
Census History
Congressional Tabulation
Coverage Evaluation
Ram & Ranch Irrigation
Geographic Area Series - Vol. 1
Horticulture Specialties (1987)
Outlying Areas
Public Use File
Ranking-States & Counties
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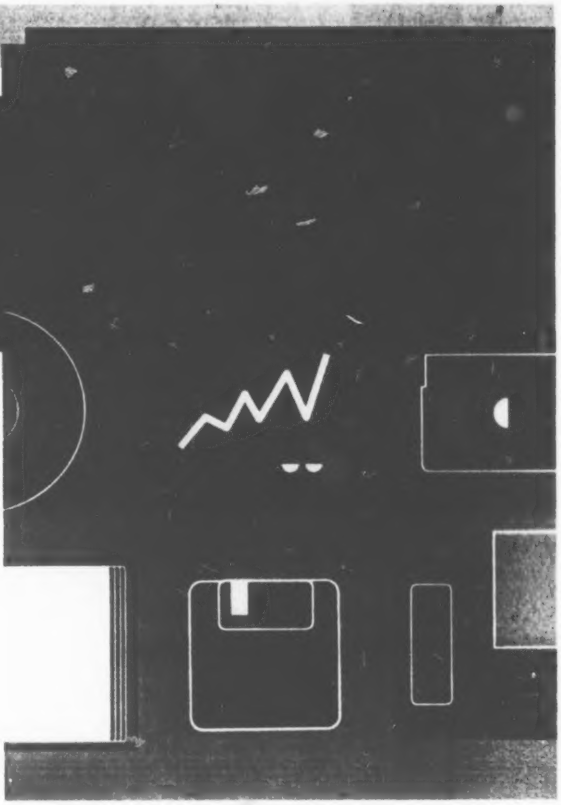

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Federal Programs

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Deficit Reduction Measure Ushers in Tax Cuts Plus New Aid for Low-Income Populations in 1998

New tax cuts should encourage various activities, such as savings and investment, higher education, support for families, and environmental cleanup. Most new spending assists poor children and welfare populations, restoring some of last year's welfare program cuts. Although some new initiatives and tax breaks support development activities, most development program funding was steady or increased slightly. Meanwhile, the USDA Rural Development Mission Area and the Federal regulatory environment continue to evolve with important implications for rural America.

This Federal Programs issue of *Rural Conditions and Trends* (*RCaT*) describes Federal program and policy changes important for rural development, including most of the larger core development programs that assist rural infrastructure, housing, businesses, and general development (including planning and technical assistance), plus changes in tax and regulatory policy affecting rural areas. This issue examines budget, tax, and regulatory changes initiated in 1997 and taking effect in 1998. We also have two special articles: one covering the latest changes in welfare-related programs and the other describing USDA's evolving rural development mission.

Like other issues of *RCaT*, our analysis is primarily descriptive. In many of our maps and figures, we use the Census Bureau's Consolidated Federal Funds Reports data (also known as Federal Funds data) to reveal where individual Federal program allocations went in fiscal year 1996 (the latest available data), on the assumption that many of these same places will be affected by current policy changes affecting these same programs. We use various State and county typologies so we can describe how policy changes might affect specific types of places, such as farm States or poverty counties. A table showing the overall urban-rural distribution of major programs is presented in appendix A. Data sources and typologies are discussed in appendix B.

We are limited in the number of maps and other figures we can provide for any one issue, but over time we hope to present information on a wide variety of programs important to rural development. In earlier issues—particularly our first Federal Programs issue (Vol. 7, No. 2)—we covered a wider array of programs, including agriculture, health, defense, education, employment and training, environment and natural resources, and income support programs.

Some Major Themes of This Report Flow From the Deficit Reduction Legislation

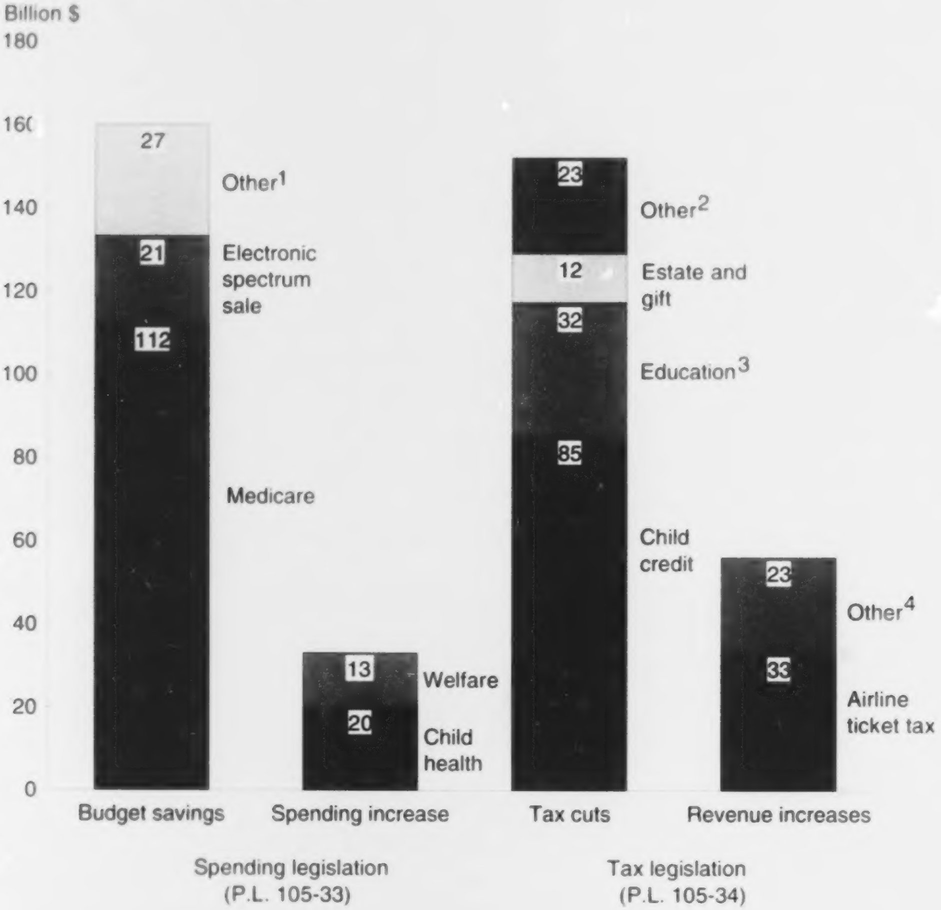
While charting a course to balance the budget, Congress and the Administration jointly found a way to cut taxes as well as increase spending. The deficit reduction legislation enacted in the summer of 1997 reconciled tax and spending plans with the resolution to balance the budget by the year 2002 (unless otherwise indicated, years cited in this article refer to Federal fiscal years, which begin October 1 of the previous year). Most of the anticipated deficit reduction derives from the assumption that economic growth will continue unabated, and from reduced growth in Medicare payments to hospitals and other health providers. Additional budget savings will come from Medicaid cuts, auctions of the electromagnetic spectrum, and revenues from the new segmented airplane ticket tax (which exempts flight segments to isolated rural airports) and from an increase in the cigarette tax. As a result, it was possible to actually increase Federal spending by $33 billion on programs mostly benefiting low-income children and welfare populations, while providing some $152 billion in new tax cuts over the coming 5 years (fig.1).

Although some rural development-related initiatives got a big boost from this legislation—particularly the welfare-to-work initiative—the 5-year budget plan allows little more than a 1-percent-per-year increase for most domestic discretionary programs, below that needed to keep up with expected inflation. Unless the economy performs better than anticipated or new sources of funds can be found, most of the major development programs appear to be facing stagnant funding levels in 1998 and in the coming 5 years. After the year 2002, more difficult budgetary adjustments may be needed as the cost of recently enacted tax reductions mounts. Another long-term concern involves the coming retirement of the baby boom generation, expected to cause rapid growth in the cost of Medicare and Social Security programs. The 1997 budget legislation accomplished no fundamental program changes to address this baby boom issue.

Figure 1

5-year changes in spending and taxes from the 1997 deficit reduction legislation

Deficit reduction was achieved through two pieces of legislation, one affecting mainly spending programs, the other affecting taxes



[1] Includes savings from Medicaid, cigarette tax increases, and miscellaneous spending cuts or tax increases.

[2] Includes new IRA's, capital gains, and other tax reductions.

[3] Includes only the hope and lifetime learning credits, excludes other, generally smaller education tax cuts.

[4] Includes extension of Federal unemployment surtax and miscellaneous revenue increases.

Source: ERS compilation, based on data from the Congressional Quarterly Weekly Report.

While long-term issues remain unresolved, the situation for rural development policy seems to have improved from 1 or 2 years ago. Among the most important development-related provisions to be implemented in 1998 are (1) the new tax cuts, some of which are targeted to development activities, (2) the creation of a new welfare-to-work grant program and the restoration of some welfare benefits that were cut in 1996, (3) the creation of a new State Child Health Insurance Program (SCHIP)—a block grant to address the needs of low-income children who lack health insurance, and (4) changes in Medicare and Medicaid programs that finance health services for the elderly, disabled, and low-income populations.

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The changes affecting Medicare and Medicaid deserve note for their potentially disproportionate effects on rural areas. For example, the deficit reduction law significantly increases the minimum payment to managed care providers to $367 per month per beneficiary, resulting in narrower urban-rural differentials in plan payment rates. This should attract more health plans into rural markets, giving more residents access to managed care service that is preferable to fee-for-service for some kinds of health sevices. Because the new law did not increase payments for fee-for-service care, however, this could be a disadvantage for providers and beneficiaries who remain outside of managed care plans. Other significant health-related changes include (1) rising Medicare part-B premiums without compensatory increases in subsidies to low-income elderly beneficiaries, which over time could be problematic for the poor elderly that are more common in rural than urban areas; (2) increased State control over Medicaid, including the ability to cut Medicaid payment rates and end subsidies of Medicare out-of-pocket costs for low-income recipients, which some experts believe might hurt health care access for the poor; and (3) expanded coverage of benefits, including preventive health care and cancer screening, which would particularly benefit rural areas because of their relatively high proportions of elderly and disabled.

The new SCHIP child health insurance program is authorized to spend $20 billion over 5 years, the largest new program in the budget. It could particularly benefit rural communities because they tend to have a higher share of uninsured children than urban communities, but States have considerable flexibility in how the new child health money is used, so it is difficult to say exactly how this program will affect rural areas at this time.

Although these health program changes are important, in this report we focus on the tax- and welfare-related changes, including the new welfare-to-work program, because they are more closely associated and coordinated with rural development programs and strategies.

Tax Reduction Will Benefit Rural Areas

The Tax Relief Act of 1997 reduces taxes for various types of individuals and economic activities, potentially affecting all rural America. It includes tax relief for families (child tax credit and education tax incentives), incentives for savings and investments (individual retirement accounts and capital gains tax breaks) and various forms of tax relief for farmers and businesses (self-employed health insurance deduction, alternative minimum tax rate for small corporations, and capital gains, estate and gift tax reductions, and special tax provisions targeted to farmers). Although most of the tax savings benefit primarily middle-income people and places, some new tax cuts focus on problems of low-income people and places, including incentives to hire employees from targeted groups of disadvantaged individuals or places (work opportunity and welfare-to-work tax credits) or to encourage private enterprise development in high-poverty or distressed areas (new Empowerment Zones, Brownfields).

Welfare-Related Program Changes Also Significant

Besides the new welfare-to-work tax credit, a variety of program changes have occurred that should help welfare populations in adjusting to the welfare reform enacted in 1996. The most significant change was the creation of the new welfare-to-work block grant program providing $3 billion during 1998-99. This program includes both a formula grant to the States and competitive grants directly to local communities. Other welfare-related changes include the restoration of Supplemental Security Income (SSI) benefits to legal immigrants who were residents as of August 22,1996, and Medicaid coverage for disabled children who might have lost coverage because of welfare reform. States may now exempt some able-bodied food stamp recipients from work requirements. In addition, Job Training Partnership Act programs got funding increases, which should help with the training part of the welfare-to-work program.

Other Themes Involve General Assistance Initiatives, Increased Infrastructure Aid, Emphases on Small Business and Homeownership, and Regulatory Changes

The main general assistance programs (programs that provide multiple forms of development assistance) are minimally changed in 1998, but many of the smaller programs are getting funding increases, and several new multi-agency initiatives are expanding, including Empowerment Zones, Brownfields, and Community Development Financial Institutions. These expanding initiatives assist high-poverty urban and rural areas.

Highway aid, the Nation's largest infrastructure program, increases by 11 percent in 1998, with more substantial changes expected when the program is reauthorized. Some smaller transportation-related programs have also been given a boost, including the Appalachian Development Highway System, Amtrak, and the Airport Improvement program. The Essential Air Services program, which particularly assists small towns and rural areas, was given a larger and more stable revenue stream. Except for the water and waste disposal program, USDA's infrastructure programs are expected to increase their assistance in 1998, with the largest increases in telecommunications and community facilities.

Some business assistance programs, including USDA's Business and Industry program, are increasing their assistance levels in 1998. The Small Business Administration's Section 7(a) program, the Nation's largest business assistance program, is also expected to increase its loan guarantees, consistent with the recent Federal emphasis on stimulating development through small and minority business development. The larger business assistance programs continue to reinvent themselves to better serve nontraditional borrowers, while achieving efficiencies through greater use of private sector lenders to screen and monitor loan performance.

Housing assistance programs increasingly emphasize homeownership as more Americans are expected to buy their own homes. Homeownership program activity is expected to increase in 1998, as mortgage financing is made more available to those who would otherwise be unlikely to purchase a home. Families targeted for assistance include minorities and low-income individuals, which are now the populations with the most rapid homeownership gains. Public housing and rental assistance expenditures are fairly stable, but significant changes are expected soon for these programs.

The most significant regulatory changes involve telecommunications, electric power, pollution controls, public land management, and financial institutions. The telecommunications industry is going through turbulent adjustments to changes arising from the Telecommunications Act of 1996. New, more restrictive, air and water pollution regulations have been proposed which, over time, could significantly affect development in many rural and urban areas. New plans have been proposed for more effective management of natural resources on national forests and public rangeland in many parts of the country, and legislation was enacted to clarify and amend the mission of the National Wildlife Refuge System, recognizing both the interests of resource conservation as well as recreation on the 92 million acres of refuge areas nationwide. Meanwhile, regulations covering financial institutions, such as banks, credit unions, and the Farm Credit System, continue to evolve, with some significant implications for rural areas.

This Issue Highlights the USDA Rural Development Mission

USDA has primary responsibility for planning and coordinating Federal rural development efforts. It also operates most of the programs that target assistance in rural areas. The lead USDA entity for rural development is the Rural Development Mission Area. In earlier issues of *RCaT*, we mentioned some of the changes underway in this Mission and we have covered in some detail how some of its main programs are being reinvented. However, our coverage of this mission area has been fragmented due to the organization of our report into separate types of assistance, such as infrastructure, business, and housing assistance. In this issue, in addition to our normal coverage of these programs, we provide a brief, comprehensive, description of this rural development agency's organization and programs, both large and small, including recent initiatives. *[Rick Reeder, 202-694-5360, rreeder@econ.ag.gov]*

Some New Initiatives Add to an Overall Stable Group of General Assistance Programs

General assistance programs offer a variety of assistance, making them flexible enough to assist rural communities facing very diverse economic challenges, ranging from poverty problems to natural disasters. They also support comprehensive development strategies. Among the largest such programs are the extension activities funded by the Department of Agriculture (USDA), the Department of Commerce's economic adjustment assistance, the Department of Housing and Urban Development's (HUD) community development assistance, Federal Emergency Management Agency's (FEMA) disaster assistance, and the Bureau of Indian Affairs assistance programs. Some smaller programs, like the Appalachian Regional Commission's programs, focus on a particular region or type of place with special needs. Most of these programs, both large and small, have maintained stable funding in 1998 (references to years in this article refer to fiscal years). However, some new initiatives have begun that are worth noting.

Funding is steady for main general assistance programs, but the disaster aid law provides new money that will particularly help the upper Midwest and some recent initiatives grow in importance, including Empowerment Zones, Brownfields, and Community Development Financial Institutions, providing special assistance to low-income areas.

Little Change in Funding in 1998 for Most Large General Assistance Programs

HUD's community development block grants (CDBG) will provide $1.25 billion general assistance to fund housing, infrastructure, and business development in small cities, rural areas, and some portions of metro areas in 1998—down only about 3 percent from 1997 (table 1). In addition to these amounts going to the State/small cities CDBG programs, CDBG includes some new set-aside funding for specific places or purposes. One set-aside provides $25 million for rural economic development. Few details of this set-aside program were specified, although it will provide for grants of up to $4 million for a variety of developmental activities and must include at least one grant in Iowa and Missouri and one for an Alaska native area. In addition to the $4.7 billion appropriated for 1998, $250 million in emergency appropriations will go for CDBG disaster relief financing (the same amount was provided for 1997).

HUD's section 108 loan guarantees, part of the CDBG program, helps communities finance housing rehabilitation, public facilities, and large-scale business development projects in both urban and rural areas. In 1998, the legal limit for these guarantees is about $1.3 billion; however, it is difficult to estimate how much will actually be obligated. In 1997, $189 million in loans were guaranteed, only a fraction of the $1.4-billion legal limit that year. Even so, this program is the largest for this kind of general purpose assistance.

Commerce Department's Economic Development Administration (EDA) provides planning, technical, and adjustment assistance. This is general assistance because it helps with a variety of projects aimed at job generation to adjust for local economic problems, such as persistent unemployment or underemployment. Unlike CDBG, it bypasses the States, going directly to local or regional governments. Funding for these programs remains stable in 1997, with $24 million for planning grants, $9 million for technical assistance, and $119 million for adjustment grants (including $89 million for defense adjustment). Additional funding goes to communities adjusting to natural disasters, including $40 million in 1998 for floods in the Midwest.

FEMA's disaster relief grants provide the lion's share of general assistance to places recovering from natural disasters. In 1997, FEMA's disaster relief totaled $4.3 billion. A good part of this assistance is headed for rural areas affected by the floods in the Midwest last spring. Current estimates for 1998 call for $3.2 billion, but the total could rise above 1997 levels if El Niño-related disasters require substantial supplemental funding.

The extension activities, funded in part by USDA's Cooperative State Research, Education, and Extension Service (CSREES), provide valuable, research-based technical

Table 1

Main general assistance programs

Funding is relatively steady for most of the large general assistance programs

Program	1997 actual	1998 estimate	Change	Rural areas most affected by the program
	Funding level by fiscal year[1]			
	—Billion dollars—		Percent	
HUD State/small cities community development block grants	1.29	1.25	-3	Small towns and rural areas in farm and poverty States
HUD section 108 loan guarantees	.18	—[2]	—[2]	Same as above
EDA adjustment assistance, includes economic and defense adjustment, planning, and technical assistance	.15	.15	0	Low-income areas, vary from year to year
FEMA disaster relief[4] flood-prone areas	4.34	3.26	-24	Earthquake- and
USDA's extension activities	.43	.42	0[5]	Small towns and rural areas
BIA Native American assistance programs	1.64	1.70	4	Indian reservations

[1] Unless otherwise indicated, new budget authority is used for funding levels.

[2] The amount of section 108 loan guarantees is mostly a function of demand by communities; thus it is impossible to provide accurate estimates for 1998 or for change from 1997 to 1998.

[3] In 1995, these programs were concentrated in farming, totally rural, and midwestern counties, but in 1996, they focused on mining- and government-dependent, urban and metro adjacent, and rural West counties.

[4] FEMA funding amounts shown are for new obligations. The 1998 amount could rise when new national emergencies are declared and supplemental funding is supplied.

[5] Funding declined by $2 million.

Source: *Budget of the United States Government, Fiscal Year 1999.*

assistance to rural communities that otherwise lack the trained staff to formulate complex development strategies. Extension activities include agricultural as well as nonagricultural development. Federal funding for extension activities remains roughly constant at $424 million in 1998 ($430 million is provided for research related to these activities), down only slightly from $426 million in 1997.

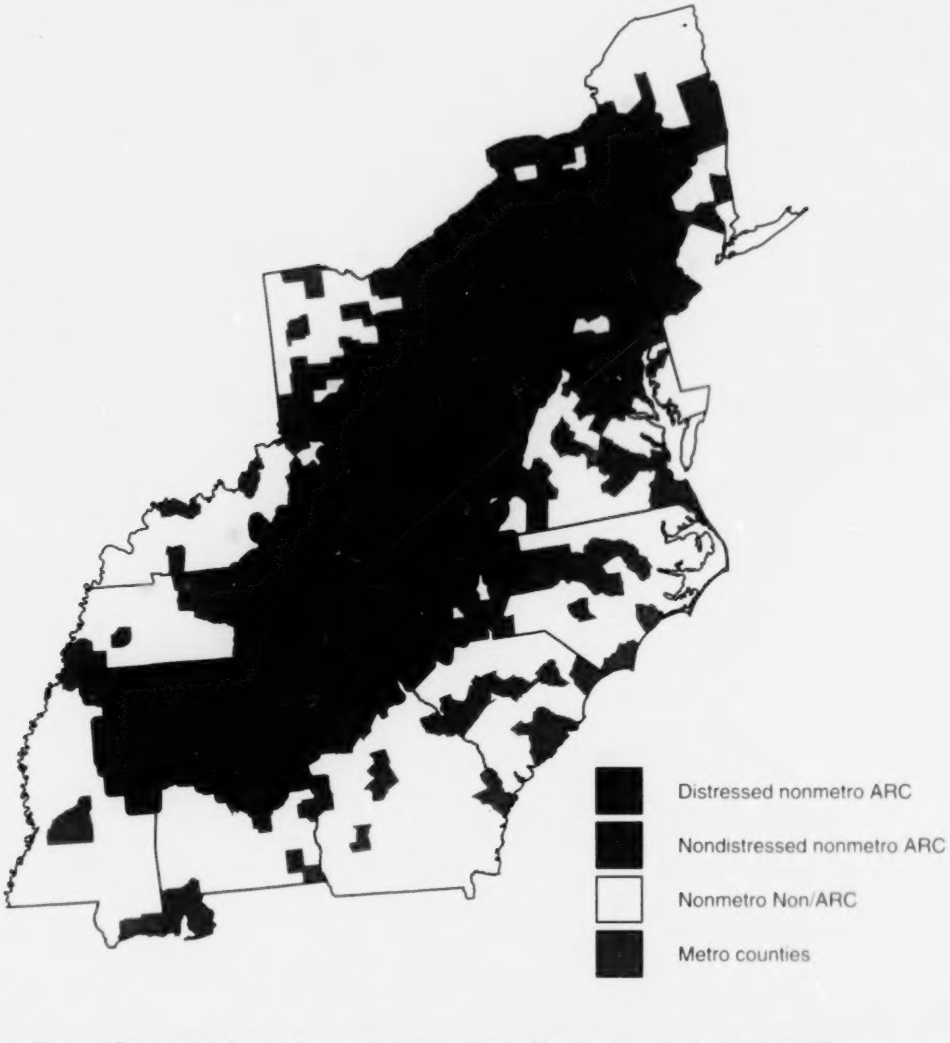
The Interior Department's Bureau of Indian Affairs (BIA) provides general assistance to Native American tribes. Funding for BIA is increasing from $1.64 to $1.70 billion in 1998. The BIA programs provide assistance to Indian reservations, mostly located in rural areas.

Many Small Programs Get More Funding in 1998

Small general assistance programs tend to help specific regions or places facing long-term economic challenges. Some of these programs are getting more funds this year than last. For example, the Appalachian Regional Commission's (ARC) programs will get $170 million in 1998, $10 million more than the year before. Included in the $170 million is about $58 million for area development, $103 million for highways, and $6 million for local development districts and technical assistance. The ARC plans to spend $15 million over 3 years on its new entrepreneurship program to help create home-grown businesses. This program provides financial, technical, managerial, and entrepreneurial training assistance, and helps with technology transfer and the creation and expansion of entrepreneurial networks. The Appalachian region, particularly the more distressed counties that are targeted for particular assistance, benefit from ARC's programs (fig. 1). This region will also benefit from $300 million in additional highway funds from the Department of Transportation (see Infrastructure Assistance article).

Counties receiving assistance from the Appalachian Regional Commission (ARC)

Distressed counties receive particular assistance



Note: The Appalachian Regional Commission's boundaries are shown in bold black. Distressed counties have at least 150 percent of the U.S. unemployment rate (9.3 percent), 150 percent of the U.S. poverty rate (19.7 percent), and less than 67 percent of the U.S. per capita market income ($12,074) or 200 percent poverty and one other indicator.
Source: ERS calculation using data from the Appalachian Regional Commission.

Interior Department payments in lieu of taxes go to areas that must forego local taxes on Federal lands within their jurisdictions. Funding for this program, which primarily benefits the West with its substantial Federal land holdings, rises from $114 million to $120 million.

USDA's Forest Service helps distressed timber-dependent and persistent-poverty communities diversify their economies and build development capacity through its economic recovery and rural development programs. Funding for these programs falls from $10.5 million to $8.9 million in 1998. However, USDA's Resource Conservation and Development (RC&D) program, which provides assistance to 315 designated RC&D areas to address local environmental, economic, and social needs, gets an increase in funding, from $29 million to $34 million. USDA's rural economic development grants and loans, which cover project feasibility studies and startup costs, incubators, and other rural development activities, also see program funding rise in 1998: loans will rise from $12 million to $25 million; grant funding remains constant at $11 million.

Disaster Relief Legislation Provides Supplemental Funds Benefiting Many Distressed Rural Areas

The Disaster Relief Legislation Act of June 1997 provided $5.5 billion in supplemental funds for disaster relief. Much of the assistance went to flood-affected areas of the upper Midwest. The act provided the following supplemental funds: $3.5 billion for FEMA flood relief in the upper plains, the Ohio Valley, and the Pacific Northwest, $100 million for Community Development Block Grants (CDBG) that HUD is directing to the upper Midwest (and additional CDBG funding for other disaster areas), $650 million for emergency highway repairs, $390 million for the U.S. Army Corps of Engineers, $161 million for USDA's watershed and flood prevention programs, and $58 million for USDA's Women, Infants, and Children (WIC) nutrition aid. While most of this money went for assistance in 1997, some extends into 1998.

This emergency assistance was paid for out of rescissions (reductions) of other programs. In some cases, this resulted in reduced aid for general assistance programs. For example, USDA's new Fund for Rural America, which got its first $100 million in funding in January 1997, lost $20 million through rescission—half of the reduction came from research supporting rural development and half came from rural development project funding. This program will not receive the second of its three originally scheduled $100-million fund infusions until October 1, 1998. Consequently, for fiscal year 1998, the program has only $34 million in unobligated carryover funds for CSREES research.

Empowerment Zones and Brownfields Initiatives Expanded

The 1997 tax legislation authorized the creation of a second round of Empowerment Zones (EZ's), including 15 urban EZ's and 5 rural EZ's, to be designated by the end of 1998. Four of the new rural EZ's will go to rural areas with high poverty; communities with population outmigration are eligible for the fifth rural EZ. The new rural EZ's, which will be designated and administered by USDA, will be eligible for the following EZ tax incentives over a 10-year period: (1) up to $60 million in tax-exempt bonds for each zone, not subject to State volume caps, to be used on development projects, (2) additional section 179 expensing deduction for appreciable tangible property (not land) investments, (3) Brownfields deductions (see below), and (4) qualified zone academy bonds. The empowerment zones would also qualify for work opportunity tax credits covering 40 percent of first year earnings paid to special "target" groups of workers, though these credits are currently set to expire at the end of June 1998. The new zones do not receive the employer wage tax credits that the first round of EZ's got. Still to be decided is whether the new zones will receive social service block grant funds, as the Administration has proposed.

Meanwhile, the Empowerment Zone/Enterprise Community (EZ/EC) program continues to help the first round of rural EZ/EC's, which includes 3 rural EZ's and 30 rural EC's (which get substantially less funding than the EZ's). The new tax legislation liberalized the definitions of zone businesses qualified to receive tax assistance, but otherwise will not affect the operation of this first round of rural EZ/EC's. The 33 rural EZ/EC's began receiving assistance in 1995. By January 1998, they had drawn down $62 million of their $208 million in Social Service Block Grants (SSBG) allocated to them as part of the program. These communities are also receiving increasing amounts of other assistance, resulting in an additional $617 million in public and private investment. For example, rural EZ/EC's got $55 million in earmarked USDA funds for infrastructure and business assistance in 1996 and $59 million in 1997. In addition, EZ/EC's qualify for priority points when competing for funds from many other Federal programs.

In 1997, a new multi-agency Brownfields National Partnership was announced, expanding the existing Brownfields initiative. When it began in 1993, this was an EPA initiative aimed at helping clean up polluted development sites so they could be redeveloped. As of 1997, about $20 million had been spent on this program. The new strategy involves more money—about $300 million has been proposed over 2 years—and coordinated assistance from other Federal agencies. For example, under the new plan, the Environmental Protection Agency (EPA) will fund assessment and cleanup operations and related training, HUD will provide community development and housing assistance, and EDA and the Small Business Administration (SBA) will provide economic development assistance. In total, 15 Federal agencies are involved in this new Brownfields National Partnership. To fund this initiative in 1998, EPA was authorized to spend about $85 million; HUD may spend $25 million from CDBG-set-aside funds and will target section 108 loan guarantee assistance to this effort.

To further the goals of this initiative, a new Brownfields tax incentive was created as part of the 1997 tax legislation. This tax incentive allows businesses to deduct environmental cleanup costs associated with Brownfield sites that are certified by States as having potentially hazardous substances. The tax benefits are limited to sites within EZ/EC's or any census tract with a 20-percent or greater poverty rate. While most Brownfields are located in urban areas, some high-poverty rural areas should benefit from this initiative, which should particularly benefit those places where land available for development is scarce (such as in mountainous areas like the Rockies or the Appalachians).

Other Initiatives Provide New or Additional Assistance

The Community Development Financial Institutions (CDFI) initiative also got an increase in funding, from $50 million in 1997 to $90 million in 1998. This initiative, which began providing assistance in 1996, revitalizes distressed urban and rural communities by enhancing the ability of selected financial organizations to extend credit and provide technical assistance to promote community development. CDFI's provide a wide range of financial products and services, including mortgage financing to first-time homebuyers, rental housing rehabilitation, startup business loans, and basic retail/consumer financial services for low-income residents. The 1998 funding includes $22 million for Bank Enterprise awards extending credit to distressed areas, $40 million for nonloan assistance to CDFI's, and $20 million for training and technical assistance.

A new American Heritage River Initiative will help restore and revitalize waterfront areas along outstanding stretches of America's rivers. Communities have nominated sites to be considered for this status. The President will select 10 of these American Heritage Rivers in 1998, the first year of this initiative. Partnerships will be created from the community up, through local, State, tribal, and Federal governments, rather than from the top down. Federal agencies will refocus resources from existing Federal programs to provide particular assistance to these areas.

The Northwest Economic Adjustment Initiative will increase its funding in its last year, 1998. This initiative committed $1.2 billion over 5 years, beginning in 1994, to assist businesses, workers, tribes, and communities hurt by reduced Federal timber harvests in California, Oregon, and Washington. Rural areas are the primary beneficiaries. Financial and technical assistance comes from various Federal agencies (USDA, Labor, EDA, EPA, HUD, Interior), allowing a comprehensive approach to revitalization, coordinated with

State and local efforts. Funding for the initiative began at $248 million in 1994, peaked at $268 million in 1995, dropped to $260 million in 1996 and $234 million in 1997. In 1998, the final year of the program, funding is expected to increase to $278 million. Much of this money comes from existing programs that are giving more priority to these places than before. *[Rick Reeder, 202-694-5360, rreeder@econ.ag.gov]*

Transportation Programs Received Largest Funding Increases

Funding increased or remained unchanged in 1998 for most Federal infrastructure programs. Important rural infrastructure activities include stopgap funding of the Nation's highway programs, rail freight merger issues, and increased funding for rural air service.

A wide array of infrastructure is supported by Federal assistance. Although a few changes were made in funding of environmental infrastructure, such as drinking water and wastewater systems, more significant changes affected transportation infrastructure in fiscal year 1998. Program activity generally is increasing for most other infrastructure programs important to rural areas, such as rural electric and telecommunications, community facilities loans, public works grants, and Forest Service payments for schools and roads.

Few Changes to Environmental Infrastructure Programs

The Environmental Protection Agency's (EPA) Drinking Water State Revolving Fund (SRF) program, which capitalizes State revolving loan funds to finance new and improved local drinking water systems, has received $725 million in Federal funding for fiscal year 1998 (references to years refer to fiscal years) (table 1). Another EPA program, the Hardship Grants Program for Rural Communities, which finances the construction of wastewater treatment facilities and complements the $1.35-billion (1998) Clean Water SRF program, continues to operate under a $50-million appropriation provided in fiscal year 1996. Under this program, small (fewer than 3,000 residents), disadvantaged (high unemployment, low income) rural communities are eligible for assistance in planning, designing, and constructing wastewater treatment facilities.

The largest USDA infrastructure program, the Water and Waste Disposal Program, provides loans and grants to small (not in excess of 10,000 residents) rural communities for establishing, expanding, and modernizing water treatment and waste disposal facilities. This program has received $1.27 billion for 1998, a 6-percent reduction from the prior year. This aid supports USDA's Water 2000 initiative, which targets Federal investment to rural communities having the most serious drinking water quality, quantity, and dependability problems. According to a 1995 estimate, more than 2.4 million rural Americans have deficiencies in their water supply, including 1 million rural residents that lack complete plumbing facilities. The highest levels of aid go to totally rural and persistant-poverty counties.

Funding Up Sharply for Most Transportation Programs

Authorization for the multiyear transportation act (the 1991 Intermodal Surface Transportation Efficiency Act, or ISTEA) expired at the end of September 1997 and funding for surface transportation programs began operating on a stop-gap basis, pending a final agreement on long-term reauthorization. The Department of Transportation's (DOT) Highway Planning and Construction Program, which provide grants for Federal-aid highways, is funded at a record $23.3 billion for 1998, up 11 percent from the 1997 funding level. This program is important in many nonmetro counties, especially in the West where per capita allocations are highest. The Nonurbanized Area Formula Program (section 5311), which provides money for rural public transportation, has received $134 million for 1998, a 6-percent increase, and is especially important in parts of the Northeast.

The $1.7-billion (1998) Airport Improvement program, which provides grants for airport capital projects, such as runway repaving, control tower improvements, and aviation safety projects, has received a 16-percent increase in funding for 1998. The $50-million (1998) Essential Air Services program, which funds air service for small communities that lost it after deregulation, has received a nearly 100-percent funding increase for 1998. The increase was attributable to the development of new funding sources for this program, which provided for a more stable revenue stream. This program mostly benefits a small number of rural communities mainly in the Midwest, the Rocky Mountain States, and Alaska (fig. 1).

Table 1

Summary of selected rural infrastructure programs

Most infrastructure programs had funding increases in 1998

Program	Federal funding by fiscal year			Rural areas most affected by the program
	1997	1998 projected	Change	
	Billion dollars		Percent	
USDA rural water and waste disposal grants and loans	1.36	1.27	-6	Totally rural and persistent-poverty counties
USDA electric loans	.82	.93	12	Same as above
USDA Community Facilities Loans	.22	.36	63	Totally rural counties in the South
USDA Distance Learning and Telemedicine Loans and Grants	.16	.16	3	Rural areas in general
DOT Highway Planning and Construction Program	20.90	23.30	11	Counties in the West
DOT Airport Improvement Program	1.46	1.70	16	Services-dependent and Federal land counties
DOT Nonurbanized Area Formula Program	.12	.13	6	Counties in the Northeast
EPA clean water State revolving fund (SRF)	1.35	1.35	0	Government counties in the South
EPA drinking water SRF	1.28	.73	-43[1]	Disadvantaged communities with small water systems
EDA public works grants	.17	.18	8	Manufacturing counties

Note: USDA = U.S. Department of Agriculture. DOT= U.S. Department of Transportation. EPA = U.S. Environmental Protection Agency. EDA = Economic Development Administration, U.S. Department of Commerce.

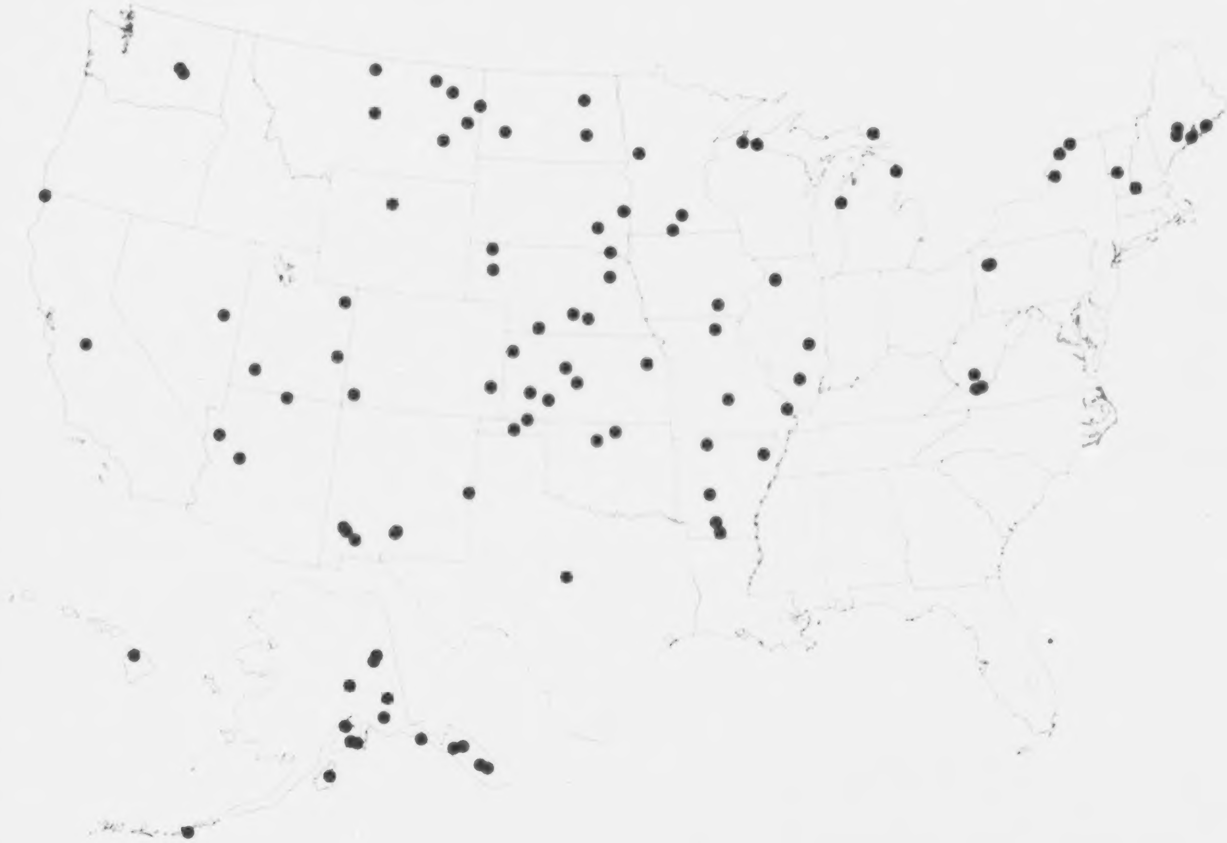
[1] Funding for the Drinking Water SRF in 1997 includes a transfer of money from 1996, resulting in what appears to be a decline for 1998.

Source: *Budget of the United States Government, Fiscal Year 1999.*

Amtrak took a 6-percent funding cut for 1998, making $793 million available for passenger rail activities this year. But Amtrak also received a $2.3-billion infusion for rail capital improvements, payable in two equal installments in fiscal years 1998 and 1999 (P.L. 105-34). While the impact of these added funds on rural passenger rail service is still unclear, most small towns will probably not be significantly affected because relatively few nonmetro communities have Amtrak service (fig. 2). The Local Rail Freight Assistance program, which provides money for track rehabilitation in primarily rural areas, received no new funding, but it continues to operate on carryover funds.

Figure 1
Communities served by Essential Air Services program, 1997

Most aid goes to communities in the Midwest, Rocky Mountain States, and Alaska



Source: Calculated by ERS using data from the U.S. Department of Transportation.

A big issue for 1998 is the proposed purchase of the Consolidated Rail Corporation (commonly referred to as Conrail) by Norfolk Southern and CSX railroads. The potential impact of such a merger on competition in rail freight service in the East will be an important issue for the Surface Transportation Board as it decides whether to approve the merger. This decision, expected sometime in 1998, may be influenced by severe rail freight congestion resulting from the recent merger between Union Pacific and Southern Pacific railroads.

The Appalachian Development Highway System (ADHS) of the Appalachian Regional Commission, whose stated objective is to provide Appalachia with a modern system of four-lane highways, received $94 million in fiscal year 1998, a slight decrease of 4 percent from 1997 levels. But funding for this program was also greatly boosted by an additional $300 million in supplemental money to be administered by the Department of Transportation (P.L. 105-66).

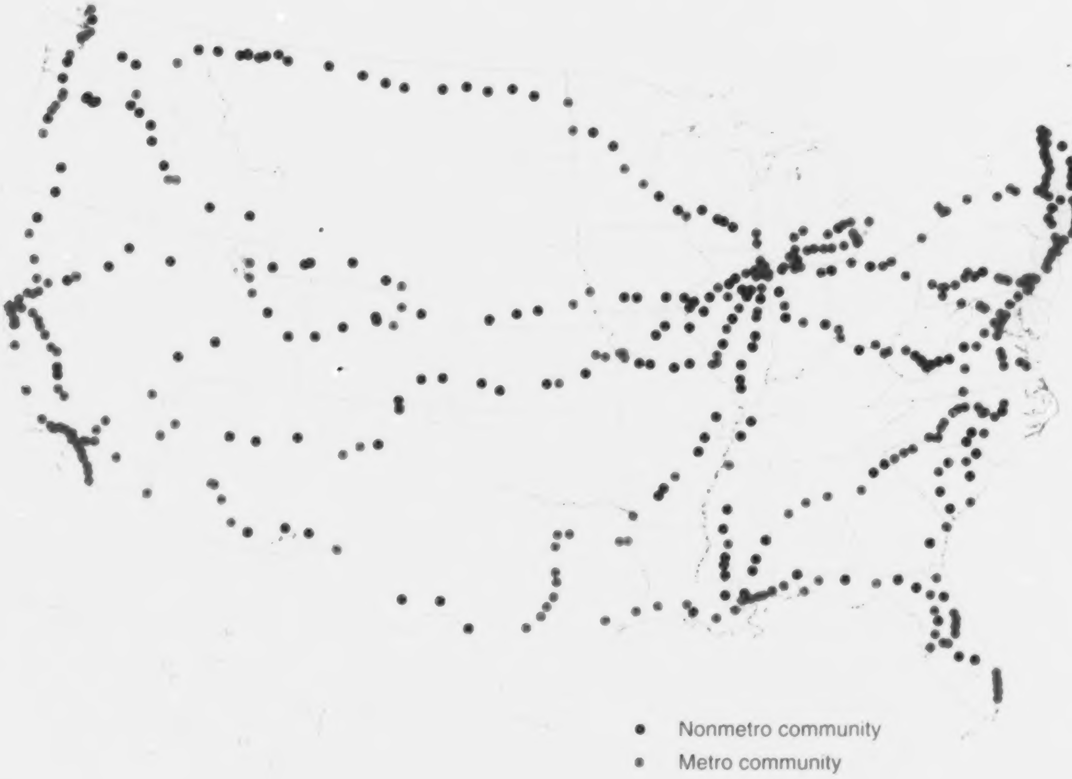
Other Infrastructure Programs

Except for the Water and Waste Disposal Program, USDA's infrastructure programs received funding increases for fiscal year 1998. For example, the Rural Housing

Figure 2

Communities served by Amtrak, June 1996

Although most towns lack passenger rail service, it remains important to those towns served



Note: Amtrak currently has no service in Alaska, Hawaii, Maine, Oklahoma, or South Dakota (although passenger rail service is available in Alaska through Alaska Rail). Map excludes Amtrak Thruway Bus service.

Source: Calculated by ERS using data from Amtrak.

Service's $359-million (1998) Community Facilities Loan program, which provides loans for essential community facilities in rural areas, got a 63-percent boost in funding compared with 1997. Funds are allocated to each State proportionately based on its rural population, with the program mainly assisting totally rural areas in the South in recent years. The Forest Service's $261-million (1998) Payments to States program, which provides grants for public schools and roads on national forest lands, grew by 12 percent.

Economic Development Administration (EDA) public works grants help distressed communities create jobs by attracting new industries, promoting business expansion, and diversifying local economies. This program particularly benefits rural manufacturing counties. EDA funds have been used for a variety of public facilities, such as water and sewer systems, industrial access roads, port and railroad facilities, schools, and business incubators. Funding for the EDA Public Works Grants program is increased 8 percent for 1998, to $178 million.

The Tennessee Valley Authority (TVA), the quasi-Federal agency that provides flood control, navigation, and electric power in the Tennessee Valley region, has received $70 million in Federal appropriations for 1998. This 34-percent decrease from 1997 funding levels is an attempt to eliminate Federal subsidies for TVA.

Funding for most telecommunication programs should increase in 1998. USDA's $495-million (1998) telecommunications loans are projected to grow sharply, by 76 percent, over 1997 levels, and the $175-million (1998) Rural Telephone Bank loans are projected to increase by 75 percent. These programs, important in totally rural counties, provide loans for upgrading and expanding telecommunications facilities that serve nonmetro residents. Funding for USDA's $163-million Distance Learning and Telemedicine program, which provides loans and grants to improve rural education and health care through telecommunications, grew by 3 percent in 1998. The Commerce Department's Information Infrastructure Grants program, which promotes the widespread use of telecommunications (the so-called Information Super Highway) to improve the quality and accessibility of various teleservices, such as health care and education, has received $18 million for 1998, a 14-percent cut.

Funding for USDA's $925-million (1998) Electric Loan program, which provides loans for upgrading and expanding electric services to rural residents, is projected to grow by 12 percent in 1998. This aid supplements money available from private credit sources and is most important to rural residents in totally rural areas and persistent-poverty counties. *[Dennis Brown, 202-694-5338, dennisb@econ.ag.gov]*

Strong Economy Energizes Commitment to Target Funding to Underserved

Federal agencies administering programs to assist small business continue to devise policies that better monitor program performance while increasing efficiencies to allow budget appropriations to accomplish more. As a part of the change in management style, agencies are requiring private sector participants to take on more risk and management responsibilities in exchange for Federal guarantees. Through this process, agencies are finding ways to cooperate with the private sector to better meet the social goals of these programs.

The importance of small business to the general economy is used to support the current Administration's budget increases for nearly all business assistance programs. According to data from the Commerce Department's Survey of Current Business that has been compiled by the Office of Advocacy, a division of the Small Business Administration, small businesses were central to the gross domestic product's strong 4.4-percent growth in 1996 and nonfarm employment rise of 2.5 percent. Nationwide, new firms rose by 2.8 percent over 1995, while business terminations decreased by 1.6 percent. Small-firm-dominated industries added 1.5 million net new jobs.

Other studies have shown that 3.5 million businesses are owned by minorities in the United States. However, if the percentage of minority businesses were equal to the percentage of minorities in the overall population, there would be 6.8 million such businesses. The apparent discrepancies in how minorities have participated in the current economic expansion has focused recent efforts to sharply increase Federal assistance to small and minority-owned businesses and to make more Federal capital available to minority entrepreneurs. In addition to increasing funding, agencies are establishing more rigorous methods of evaluating whether the targeted groups are being served. Secretary of Agriculture Dan Glickman established the National Office of Outreach to assure that small and minority businesses have full access to all USDA programs and services.

Of the 2,276 counties designated as nonmetro (or rural) in 1996, 320 received no business program assistance at all (fig. 1). By contrast, more than 400 counties received assistance from three or more programs. Those counties not receiving assistance were concentrated in the Great Plains and in various parts of the South. The location of these counties suggests that areas with little or no population growth or that are seriously underdeveloped may be less likely to generate demand for credit and, thus, may make less, or no, use of credit-market-enhancing programs. This assistance pattern may also reflect a possible need to better inform the public of what Federal small-business assistance is available.

Expansion in Program Activity Expected to Continue

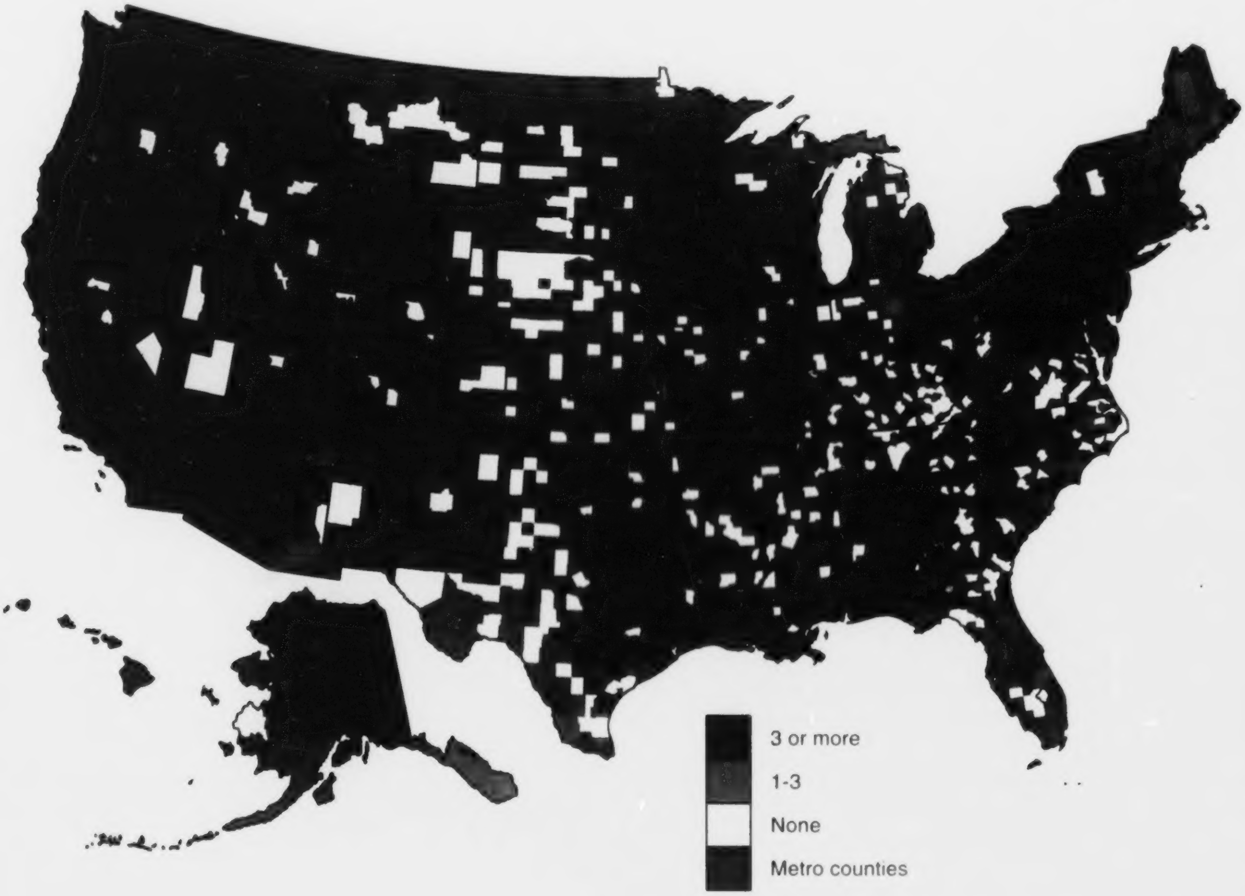
Over the last 5 years, the level of funding for business assistance programs has steadily increased and the types of assistance offered have broadened. Over 20 programs are available to make capital more accessible at reduced interest rates; and many of these programs provide technical assistance to increase the small business borrower's probabilities of success. The largest programs are guaranteed loan programs that increasingly rely on private sector lenders to screen applicants and monitor loan performance. Beginning in the early 1990's and even more so in the last two budget cycles, agencies assisting small business development have energetically developed new programs to better target microbusinesses and those businesses not well suited to traditional borrower-lender relationships.

The Small Business Administration (SBA). SBA offers over 15 different programs to meet the varying financial needs of small business. SBA's largest business assistance program, the section 7(a) guaranteed loan program, is projected to increase its program level from $9 billion in 1997 to $9.2 billion in 1998 (all references to years refer to fiscal years). This program is available to both metro and nonmetro areas, but is of particular importance to nonmetro areas, many of which rely almost exclusively on small businesses for their employment growth. The number and volume of loans made under the 7(a) guarantee program have increased dramatically in recent years. In 1992, SBA made or guaranteed approximately 24,000 loans totaling about $5.9 billion. By 1997, that increased to approximately 45,000 loans totaling about $9.5 billion. As the number of loans and volume outstanding have increased, the average percentage of the loan that

Figure 1

Number of small business programs benefiting rural counties, fiscal year 1996

Many of the 320 nonmetro counties without small business assistance are in the Great Plains



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

was guaranteed has declined: 81 percent was guaranteed before 1992, while 73 percent was guaranteed in 1997. In 1996, nonmetro areas received $24 in per capita small business 7(a) guarantee assistance, somewhat less than the $27 received in metro areas; the nonmetro areas that benefited most were in counties in the West that were not adjacent to metro areas, and in counties specializing in services and farming.

The second largest SBA program, the section 504 Certified Development Loan Company program, is projected to increase its obligations from $1.4 billion to $2 billion in 1998. The section 504 program has also significantly grown. In 1992, the 504 program assisted about 290 Certified Development Companies (CDC's), making about 2,000 long-term loans totaling nearly $560 million. In 1997, about 6,900 loans were made through the same network of 290 or so CDC's totaling $1.4 billion. In 1996, nonmetro counties on average received just over $8 per capita in 504 loan guarantees compared with over $11 per capita for metro ones. Among nonmetro areas, nonadjacent nonmetro counties received more funding per capita than those adjacent to metro counties, and western counties and counties emphasizing service industries benefited the most (table 1).

USDA's Rural Business-Cooperative Service (RBS). RBS's main business assistance programs are the Business and Industry (B&I) program, the Intermediary Relending

Table 1

Selected business assistance programs

Most business loan guarantee programs are expected to increase or maintain steady loan activity in 1998

	Program level by fiscal year[1]			
Program	1997 actual	1998 estimate	Change	Rural areas most affected by the program
	—Billion dollars—		Percent	
SBA 7(a) business loan guarantees	9.00	9.20	2	Services, farming, and Federal lands counties in West
SBA Certified Development Loan Company guarantee (section 504)	1.42	2.00	41	Services counties in West
SBA disaster loans	.96	.79	-18	Place experiencing disasters
RBS Business and Industry loan guarantees (B&I)	.82	1.00	22	Service and mining counties in West
RBS Intermediary Relending Program	.04	.04	0	Farming, Government, nonadjacent, and Federal lands counties in West
RBS Rural Business Enterprise Grants (RBEG)	.05	.04	-20	Farming, service, and transfer counties in West and South
EDA Economic Adjustment[2] Grants	.03	.03	0	Farming and totally rural counties in West

Note: EDA = Economic Development Administration, U.S. Department of Commerce. RBS = Rural Business-Cooperative Service, U.S. Department of Agriculture. SBA = Small Business Administration.

[1] Budget authority used for grant programs; projected loan levels (obligations or program level) used for loan programs. Note that in some cases, budget authority may be falling at the same time that projected loan obligations are rising. This can happen for any number of reasons, including making use of greater efficiencies, reducing subsidies, charging fees, and using unobligated balances of funds from prior years.

[2] This represents just part of the larger EDAP program (see text); many of these grants are used to support revolving loan funds that issue loans to businesses; hence, a larger number of loans will result than indicated by this budget authority amount.

Source: *Budget of the United States Government, Fiscal Year 1998.*

Program (IRP), and the Rural Business Enterprise Grants (RBEG) program. Of the three agencies involved in providing direct financial assistance to small businesses, RBS is the only one to have program restrictions regarding size of community. RBS's programs are generally available to communities with less than 50,000 in population; in the case of the IRP, city populations are limited to 25,000.

The B&I program includes both guaranteed loans and direct loans. The larger guaranteed program created about $820 million in loan activity, through its guarantees, in 1997. The program is projected to create upwards of $1 billion in loan activity in 1998, for an increase of 22 percent. The IRP is expected to remain steady and provide around $40 million in low interest-rate loans to capitalize revolving loan funds in rural areas. The RBEG program provided about $50 million in grants in 1997, but, due to budgetary constraints, is projected to decline in activity by about 20 percent for 1998.

Commerce Department's Economic Development Administration (EDA). EDA operates another program benefiting rural businesses, the Economic Adjustment Program (EAP). As the name implies, the EAP helps local areas make adjustments to severe changes in their economic situations. Funding for the EAP remains steady at about $31 million in 1998. Approximately 10 percent of this amount will be available to make grants to capitalize revolving loan funds. Through the revolving loan funds, EAP provides most of its assistance to small businesses.

Reinvention Efforts Continue to Improve Business Assistance Programs

Rapidly evolving financial markets are changing both the structure of intermediaries as well as the types of clients they are serving. Competition within and across business lines, along with changing regulatory structures and increasingly sophisticated analytical techniques, have lenders seeking out some borrowers previously thought to be uncreditworthy. In addition, funds are flowing more readily to their most productive uses, and information quality and quantity has increased as well. Together, these changes are affecting the roles, risks, and operations of Federal credit programs. If the main Federal role is to provide credit that private markets would not otherwise provide, then Federal credit programs must evolve as private credit markets evolve, and the success of these programs must be measured meaningfully. Implementation of the Government Performance and Results Act (GPRA) will help to assess whether programs are achieving their intended results in practice—and will improve the odds for success. The Federal Credit Reform Act of 1990 began to reconcile the tension between achieving social goals or purposes and "business-like" financial management. Implementation of GPRA is bringing the realization that a program's social success and financial success are two facets of the same goal.

SBA, RBS, and EDA have each become more efficient as a result of efforts to implement the requirements of GPRA. Portfolio performance has improved for the SBA's 7(a) guarantee program, and RBS's B&I loan portfolio loss rates have declined. Additional improvements have come as better loan information is gathered and other technical refinements have been made allowing subsidy rates on Federal credit assistance to be lowered. This results directly in lower cost to the agency per dollar of loan activity.

The Future of Small Business Credit Assistance

As more has been learned about how Federal credit programs can complement private markets, program outcomes have become more successful. Previous successes are resulting in an across-the-board refocusing of primary program missions. In keeping with the goal of making credit available where it otherwise would not be, each agency that administers a small business assistance program in 1998 is pushing program accessibility to the poorest and other neglected members of the economy.

The SBA Microloan Program is targeted to very small businesses with financing needs of $25,000 or less. This program was made permanent in December 1997 under P.L. 105-135. To date, over $65 million has been lent to almost 6,600 microborrowers. In addition to very small loans, the program offers business-based technical assistance to each microloan client.

In addition to the SBA Microloan Program, SBA will be focusing its programs, performance, and policy objectives on increasing small business opportunities by (1) concentrating on traditionally underserved small businesses; (2) offering specialized financing products, such as venture capital, export financing, and bonding opportunities; (3) improving methods of providing credit assistance through electronic lending, less documentation, centralized functions, and one-stop capital access points; (4) reducing costs by maintaining a high-quality portfolio through an improved liquidation process; and (5) effectively implementing a loan asset sales program. Number four is an example of placing more responsibility for financial performance of a loan on the private sector lender. For the lenders to exercise the loan guarantee, they are now required to liquidate all relevant chattel, which secures the loan. This reduces the guarantee costs for the SBA.

USDA's RBS has implemented similar types of goals and is also requiring more financial responsibility of participating lenders. USDA will also be focusing on meeting the financing needs of persistent-poverty, declining-population, and minority rural areas. One example is the newly revised IRP program, which will be more directly targeted to the poorest rural areas. Also, loan applications will now be approved at the State office rather than the national office. *[George Wallace, 202-694-5369, gwallace@econ.ag.gov]*

Federal Housing Assistance Promotes Homeownership

For several years, the rate of homeownership has increased, while the activities of Federal agencies have been targeted at promoting and supporting this trend. These trends are expected to continue, while major changes are proposed for public housing programs.

Most American families (65.7 percent) own their homes. Homeownership is highest in rural America, averaging 73.7 percent for 1997, compared with a similar 72.5 percent for metro suburbs and 49.9 percent in central cities. Homeownership for each of these areas is at its highest level in over a decade, with each up about 0.2 percent from 1996 levels. This is the third consecutive year for across-the-board increases in the homeownership rate. Regionally, rural homeownership rates are higher than those of suburbs in the South and West, but suburban rates were higher in the Northeast and Midwest (fig. 1). Homeownership is most typical for nonminority populations, those neither very young nor old, and families with higher incomes. As homeownership increases, the income gap between owners and renters widens, and the proportion of renters with low incomes increases. But in other ways, dissimilarities between owners and renters are narrowing. Although homeownership is less frequent among minorities, particularly Blacks and Hispanics, the rate of growth in homeowning is most rapid for these minority populations.

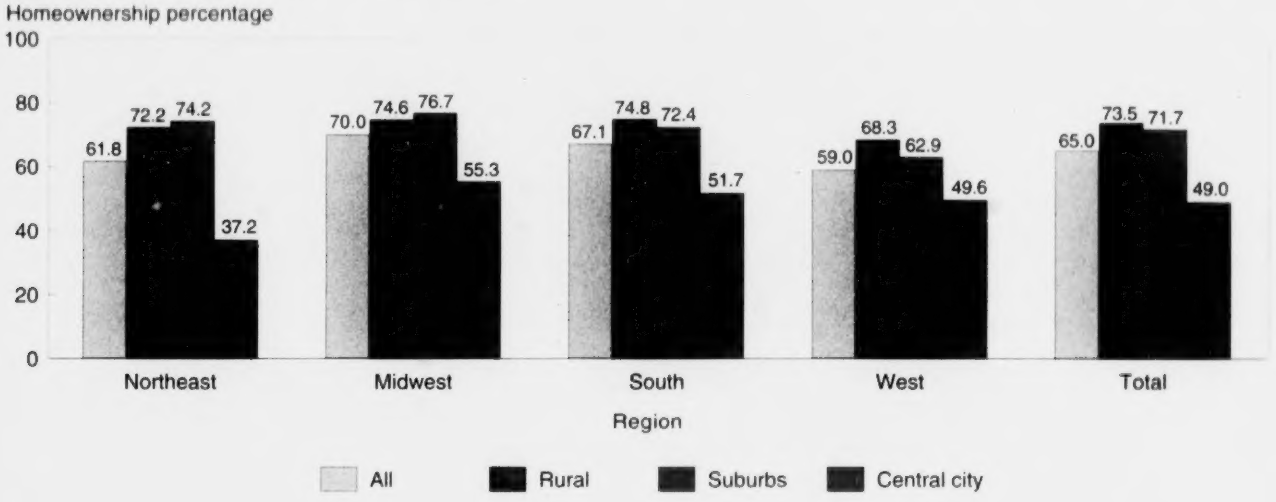
Federal housing programs are critical factors in advancing homeownership as the preferred housing alternative for most Americans. The long history of USDA programs that have provided home mortgages to low-income rural families may well have contributed to the particularly high level of homeownership in rural communities. In contrast, housing assistance for low-income urban families has historically relied more on rental assistance.

In both rural and urban America, as more of those who can afford homeownership leave rental housing, the already high share of renters that are low-income continues to grow. Welfare reform is beginning to affect the incomes and lives of many renters, particularly those receiving government housing assistance, including many of those in public housing. Against this background, a number of issues affect rental housing and complicate the debate about appropriate public policy. These issues include who would be assisted, the amount of that assistance, tenant requirements, appropriate local autonomy, and delivery methods (vouchers, public housing, low-income housing tax credits, low-cost construction loans, or rental subsidies).

Figure 1

Homeownership rates by region, 1995

Rural homeownership tops suburbs in South and West



Source: ERS tabulation from American Housing Survey for the United States in 1995.

The amount of direct mortgage lending by Federal agencies is now so small that annual fluctuations are unlikely to have much effect on the level of homeownership (table 1). However, such changes are still very important to the potential borrowers. Because of their low incomes they often have no other way to achieve homeownership. Most direct mortgage lending is done through USDA's section 502 program. Although lending under this program declined somewhat in 1997, higher levels are anticipated for 1998 and have been requested in the President's budget for 1999. This would interrupt a period when each year many of the more heavily subsidized Federal housing programs were reduced in size, and the subsidies provided to each program participant were often lowered. The much less costly USDA section 502 guarantee program has a clientele with relatively higher incomes and charges insurance fees that cover a substantial portion of loan losses and operating costs.

Unless restrained by regulatory ceilings, year-to-year changes in the volume of loan guarantees tend to reflect loan demand rather than the emphasis placed on such activities by the administrating agencies. USDA's section 502 guarantee program has grown each year since its inception, reaching its authorized limit each year. But both the Department of Housing and Urban Development's (HUD's) Federal Housing Administration (FHA) and the Department of Veterans Affairs (VA) insured fewer loans in 1997 than in 1996 and, as

Table 1

Summary of largest housing programs

Projected levels of some Federal housing loan programs are up in 1998, others are down

	Program levels by fiscal year			
Program	1997 actual	1998 estimate	Change	Rural areas most affected by the program
	—Billion dollars—		Percent	
USDA/RHS:				
Single family (sec. 502)—Direct loans	0.71	1.00	4	Large metro fringe, South and Midwest, retirement and Federal lands counties[1]
Guarantees	2.03	3.02	49	Included above[1]
Multifamily (sec. 515)	.15	.13	-16	West, totally rural, and poverty
Rental assistance	.52	.54	5	West, all but the most urbanized
VA:				
Loan guarantees	24.30	24.80	2	West, urbanized nonmetro and adjacent
HUD:				
FHA single-family mortgage insurance	75.43	82.26	9	West, urbanized nonmetro
Public and Indian	24.08	23.68	-2	West, nonadjacent and high poverty

Note: USDA/RHS = U.S. Department of Agriculture, Rural Development, Rural Housing Service. VA = U.S. Department of Veterans Affairs. HUD = U.S. Department of Housing and Urban Development. FHA = Federal Housing Administration.

[1] Information on loan distribution combines direct and guaranteed loans in a single category.

Source: ERS calculations based on the Budget and Census's Federal Funds data.

usual, were below their maximum levels. FHA and VA loan guarantees are projected to increase in 1998 because of greater anticipated demand for this assistance.

In addition, two government-sponsored enterprises (GSE's)—the Federal National Mortgage Association (Fannie Mae) and the Federal Home Loan Mortgage Corporation (Freddie Mac)—are major players in home mortgage financing through their secondary-mortgage market activities. They purchase home mortgages made by other lenders and in turn sell securities backed by the assets and income represented by those loans or on occasion hold mortgages as their own investments. Both GSE's have initiatives to increase their purchases of certain categories of mortgages, including those on rural properties.

Fewer Rural Home Buyers Receive Government-Assisted Mortgages

While a substantial minority of both rural and urban households benefit from Federal housing programs, these programs reach a smaller share of rural households. The 1995 American Housing Survey found that 14.6 percent of nonmetro and 24.0 percent of metro home mortgages were either from, or insured by, a Federal government agency (fig. 2).

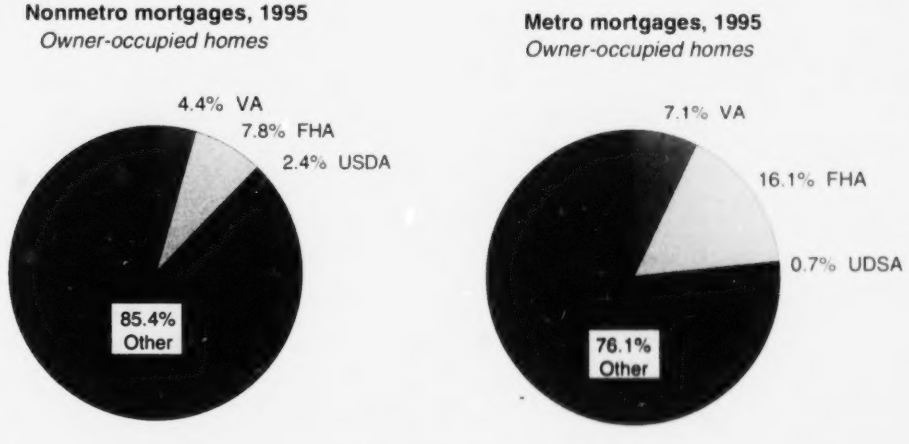
HUD is primarily responsible for housing assistance and, consequently, through the FHA, provides the largest amount of home mortgage assistance, both in urban and rural areas. However, USDA's section 502 direct and guaranteed program, administered by the Rural Housing Service (RHS), also plays an important role. In particular, the section 502 direct loan activity is the only mortgage program targeted to low-income households that otherwise could not afford to be homeowners.

Section 502 loan guarantees are increasing in importance in rural areas. Since its start in fiscal year 1992, the volume of loan guarantees has increased each year, a trend that is expected to continue in fiscal year 1998. From 1992 through 1997 the amount of section 502 direct lending has been declining. As a result, section 502 guarantees are now about three times the dollar amount of direct loans. The 1997 level of direct lending was below that anticipated when the budget was passed, because higher than expected market interest rates in turn raised the amount of subsidy associated with each direct loan. However, both direct and guaranteed lending are expected to rise in 1998.

Figure 2

Use of Federal government mortgage insurance programs, 1995

Rural mortgages are less often Government-insured



Nonmetro mortgages, 1995
Owner-occupied homes

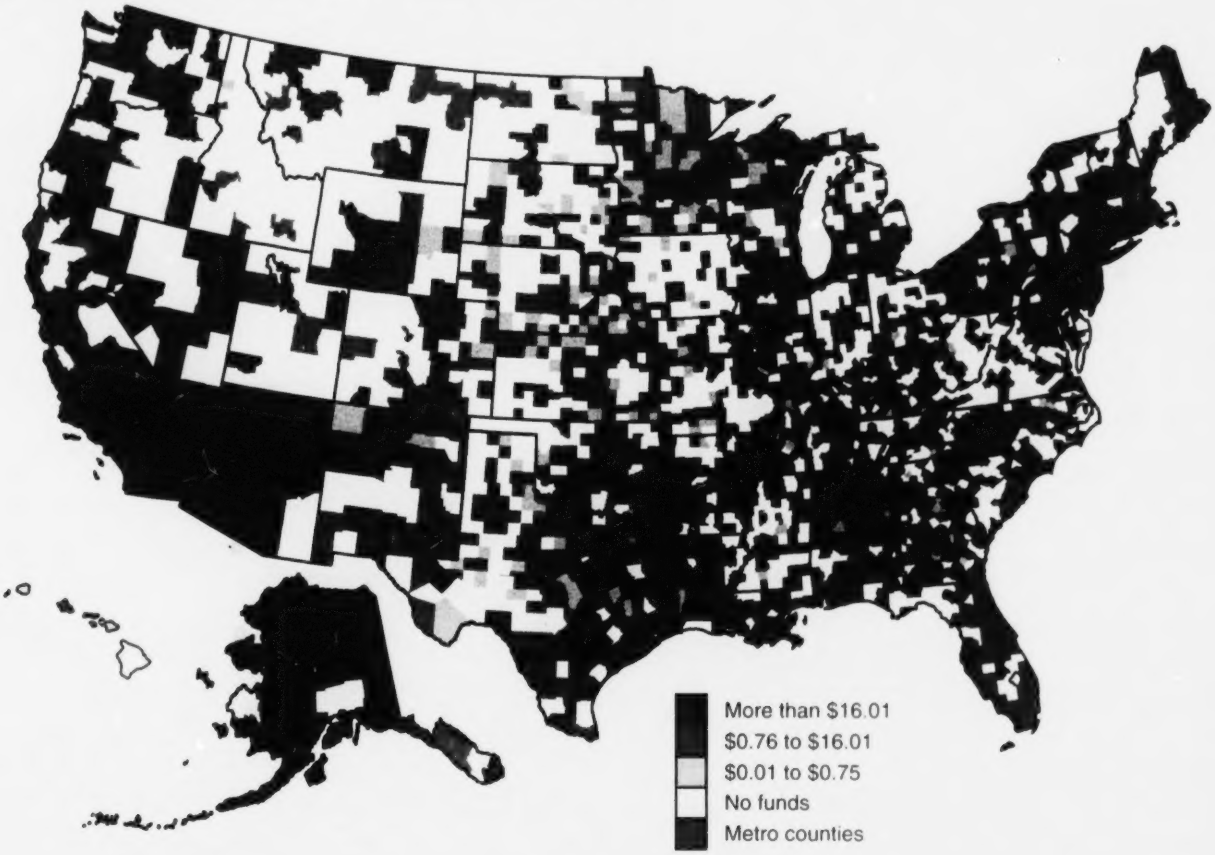
Metro mortgages, 1995
Owner-occupied homes

Source: ERS tabulations from American Housing Survey for the United States in 1995.

Government Rental Programs Changing

Rental housing assistance takes many forms. Low-income housing tax credits (LIHTC's) allow developers of low-income housing to borrow funds at below-market interest rates by providing an annual Federal tax credit to investors in limited partnerships that make these loans. The property owner can use the funds for purchase, construction, or rehabilitation, and in turn is obligated to rent a portion of those units to low-income tenants at below-market rates. Each State is allowed a limited number of credits each year, based on its population. The President's 1999 budget proposes an increase in the amount of these credits. Subsidized loans usually provide low-interest financing to a nonprofit, limited-profit, or governmental entity that, in exchange, agrees to certain requirements for providing low-income housing. Rental assistance payments are often used in conjunction with the previously mentioned subsidies to bridge any gap between the rent-paying ability of low-income tenants and the rent payments that are due property owners. Programs providing such assistance to rural tenants are operated by the USDA and HUD. Certificates and vouchers are issued to qualified families for use in paying for qualified housing, which is generally rental and privately owned. Vouchers are quite similar to certificates, but

Figure 3
Per capita HUD public and Indian housing assistance, fiscal year 1996
Higher amounts are in the South and counties with Indian reservations



Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

allow recipients to choose from a wider selection of housing units, potentially at a higher tenant cost. Many feel that vouchers' greater flexibility in location will be important for assisting many welfare recipients in their transition to employment. This part of HUD's section 8 program has recently become one of the major rental subsidy activities. Public housing provides 1.3 million publicly owned housing units operated by public housing authorities. While little, if any, new public housing is being built, except to replace demolished units, considerable funding is needed to operate and maintain this housing for those least able to pay rent.

While urban areas receive more Federal funds for rental housing than do rural areas, the difference is much less than that for homeowner programs. In fiscal year 1996, the largest programs for rental housing provided about \$95 per capita nationally and \$70 per capita in rural areas. Higher rural levels seemed to be in parts of the South, the Appalachian region, and Indian reservations (fig. 3). By comparison, the major homeownership programs provided per capita amounts of \$273 nationally and \$106 in rural areas.

Owner programs have a clientele base that includes many moderate-income families.Renter programs are almost exclusively focused on the low-income population. Renter programs operate either by subsidizing rents for those unable to afford adequate housing or by promoting an increased supply of low-cost rental housing. Both approaches can be found in a single program, such as the RHS section 515 program where financing costs are subsidized in return for an agreement that units be rented to program participants at reduced rates. HUD's rental assistance is shifting away from such long-term subsidies tied to particular rental units and into more flexible tenant assistance, which gives greater attention to housing vouchers, local control, and homeownership options.

The future direction of Federal government rental assistance is far from clear, though there have been a number of recent changes and more are quite likely. Since the 1970's, the poorest families have been given priority for public housing and tenant rent could not exceed 30 percent of adjusted income (which was often zero). Beginning in 1995, public housing authorities have had more flexibility to set their own rules, including charging a minimum rent (up to \$50) and selecting tenants on a basis other than lowest income. But many housing authorities have been hesitant to make changes because this authority must be renewed each year. Various proposals for more permanent changes have been in the legislative process for over a year, and there is some optimism that an agreement will be reached soon. Points of contention include the degree of autonomy given local housing authorities (or governments), minimum and maximum rents, and the allowable income mix of tenants.

More permanent change has come to one segment of public housing, that for American Indians and Alaska Native tribes. New rules, established by 1996 legislation, will give tribal housing authorities more authority, providing \$600 million of public housing funds as block grants. While there are still guidelines for the use of these funds, local authorities have much more flexibility than in the past.

Rental Assistance Is USDA's Major Expenditure on Housing Programs

USDA's housing programs, administered by the Rural Housing Service (RHS), provide assistance in rural portions of both nonmetro and metro counties. The section 502 single-family housing program comprised over three-fourths of the agency's total housing loan and grant activity. Most of this amount was related mortgage lending, not the government cost of providing that assistance. In contrast, expenditures for rental subsidies consumed the bulk of RHS's budget.

As discussed earlier, over the last 4 years, the direct lending share of the section 502 program fell, while the number and amount of guarantees grew rapidly. In turn, per borrower program costs have fallen, since only direct loans carry a significant subsidy. Subsidy expenses on new loans were also lowered by changes in program regulations that increased the effective interest rate on most direct loans. Subsidies on direct loans also rise and fall in tandem with movements in market interest rates. This is because the effective interest rates on most new direct loans are determined by borrower income, without consideration of market interest rates. A major change implemented in fiscal year 1998 provides further cost savings to the Government, mostly through lowering administrative expenses.

RHS is using loan leveraging to reach more low-income borrowers with its limited funds for direct lending. In conjunction with the primary loan from another lender, the RHS makes a reduced-interest loan for the remainder of the total financed amount. RHS has an agreement with Fannie Mae and Freddie Mac that they will purchase the non-RHS portion of such loans. RHS often makes loan-sharing agreements directly with various public, private, and nonprofit entities. Although this increases the number of people that can be assisted, unless the companion loan also carries a greatly reduced interest rate, this program cannot reach RHS's lowest income clientele. In addition, because RHS takes essentially all of the risk exposure for the combined loan, RHS's future loss rate may be higher than if RHS were the sole lender, because it is involved in more loans.

The RHS administers other housing programs for the same rural areas eligible for the section 502 program. The largest of these activities in fiscal year 1996 provided rental assistance for low-income tenants in RHS-financed rental housing. The $520 million in estimated fiscal year 1998 budget authority for rental assistance is two-thirds of the total for all RHS loan and grant programs, exclusive of costs for salaries and expenses. Additionally, RHS's section 515 multifamily housing program provides financing for the construction, purchase, rehabilitation, or repair of low-income rental housing. Over two-thirds of such RHS rental housing assistance, both loan and grant, went to nonmetro areas. Additional RHS programs include such activities as very-low-income home repair, self-help housing, and farm-labor housing. After doubling to $26 million in fiscal year 1997, funding for mutual self-help grants is expected to remain steady in 1998.

FHA Insurance Expands Dominant Role in HUD Housing Programs

HUD's main housing activity is FHA's single-family home mortgage insurance program, which provided over $75 billion of mortgage insurance in fiscal year 1997 and is projected to exceed $82 billion in 1998. Only 6 percent of the amount insured in fiscal year 1996 was in nonmetro areas. These nonmetro loans were concentrated in the West and in counties that were more urbanized. The nonmetro aid distribution of FHA and RHS programs were quite different, with the RHS section 502 program varying little by rurality level and FHA assistance considerably lower in the more rural counties. Totally rural counties not adjacent to a metro area had only $25.29 of FHA loans per capita compared with $98.58 for the most urbanized adjacent counties and the metro average of $263.54.

HUD's multifamily programs receive the bulk of all housing grant funds. In fiscal year 1996, expenditures on the major public housing programs were about $6.2 billion, which was $23.22 per capita nationally and $18.95 in rural areas. On a per capita basis, rural counties with higher funding levels were more often in the West, were isolated from metro centers, or contained Indian reservations.

Major changes have already been made in HUD programs, and others are in the works. HUD programs seem destined to be far fewer in number and much more flexible in how they are used. State and local governments and housing authorities will have greater control over the use of Federal housing assistance. And many program recipients will have a choice in how that assistance is used, including where they will live, and even whether they will rent or purchase a home. Commitment is strong to expand the opportunity for homeownership to a wider audience, reduce the role of large-scale housing projects for the low-income, and respond to changing needs, such as those introduced by welfare reform. As an agency, the future HUD will also be quite different. The total number of HUD employees will drop over 20 percent, with many of these in a few locations with specialized functions, and far fewer assigned to local offices. Many HUD activities will be consolidated or modified in other ways. While the dust has not yet settled, changes at HUD are underway, significant, and happening quickly.

VA Mortgage Insurance Concentrates in Urban Areas

VA housing loans are expected to total about $25 billion in fiscal year 1998, a nominal increase from 1997. In fiscal year 1996, about 11 percent of VA's housing program activity was in nonmetro areas. Nearly all of that is in the form of guaranteed loans. Rural areas received over $21 per capita of such VA loans, slightly more than half of that received by urban areas. VA nonmetro loan levels were highest in the most urban and adjacent counties ($33.93) and lowest in the most rural and nonadjacent counties ($10.09). By region, nonmetro lending was highest in the West ($36.28) and lowest in the Midwest ($15.24)

Most VA borrowers pay a loan guarantee fee that is a percentage of the loan amount. Fees are higher for certain loans, including those with smaller downpayments. Some special borrowers can receive the loan guarantee at no cost. The only direct loans that VA makes are a very few to finance specially adapted housing for a few disabled veterans. Still outstanding are a number of direct loans made by VA when they also targeted "rural areas where availability of private mortgage funds was limited." *[Jim Mikesell, 202-694-5432, mikesell@econ.ag.gov]*

New Welfare-to-Work Program Helps Adjustment to Welfare Reform

Congress enacted major welfare reform legislation in 1996, devolving much of the responsibility upon the States. In 1997, Congress and the Administration restored certain benefits to legal immigrants and to disabled children. Medical assistance to children of low-income families was extended, and job training programs received additional funding. A Welfare-to-Work program was created in a bold experiment to bring welfare recipients with the most difficult circumstances into the productive labor force.

President Clinton signed into law the Personal Responsibility and Work Opportunity Reconciliation Act (P.L. 104-193) on August 22, 1996. It provided the most significant changes in welfare programs in 60 years (see *Rural Conditions and Trends*, Vol. 8, No. 1). It replaced a host of earlier programs, such as Aid to Families with Dependent Children (AFDC), Job Opportunities and Basic Skills Program (JOBS), and Emergency Assistance (EA), with the new Temporary Assistance for Needy Families (TANF) block grants to States. After decades of complaints about second- and third-generation welfare families and occasional scandals, the new program aimed to move away from cash assistance to families and toward integrating them into the productive work force.

Although most Americans probably visualize the poverty in the stricken center cities of this largely urbanized Nation, around 20 percent of welfare cases live in rural areas. Most of the case load is rural in 14 States—Alaska, Arkansas, Idaho, Kentucky, Mississippi, Montana, New Mexico, North Carolina, North Dakota, South Carolina, South Dakota, Vermont, West Virginia, and Wyoming. A considerable number of other States had rural areas of high welfare dependence. Central Appalachia, the Black Belt in the Southeast, the Mississippi Delta, and portions of the Southwest, Northern California, Washington, Montana, and Maine, and various Indian reservations across the country stand out in particular (fig. 1).

With the support of sustained economic growth, TANF surprised even many of its early supporters with its first-year success in reducing welfare cases between August 1996 and April 1997. The number of TANF recipients in Arkansas, for example, dropped by 5 percent, in Kentucky by 9 percent, in South Carolina by 24 percent, and in Tennessee by an amazing 27 percent. An ongoing concern, however, is the group of hardest-to-employ welfare cases, many of them in isolated rural areas. The Balanced Budget Act of 1997, signed by President Clinton on August 5, empowered the Department of Labor to give Welfare-to-Work grants to States and local communities. These funds were aimed at making it possible for even the hardest cases among TANF recipients to find and hold employment (see "Welfare-to-Work Grants").

Provisions for Funding Welfare-to-Work

Congress voted $3 billion for the new Welfare-to-Work program, to be divided between fiscal years 1998 and 1999. A small amount was set aside for participating Indian tribes (1.0 percent), evaluation (0.8 percent), and performance bonuses to be distributed in fiscal year 2000 to successful States ($100 million). The remainder was to be divided between formula grants to the States and competitive grants to local communities.

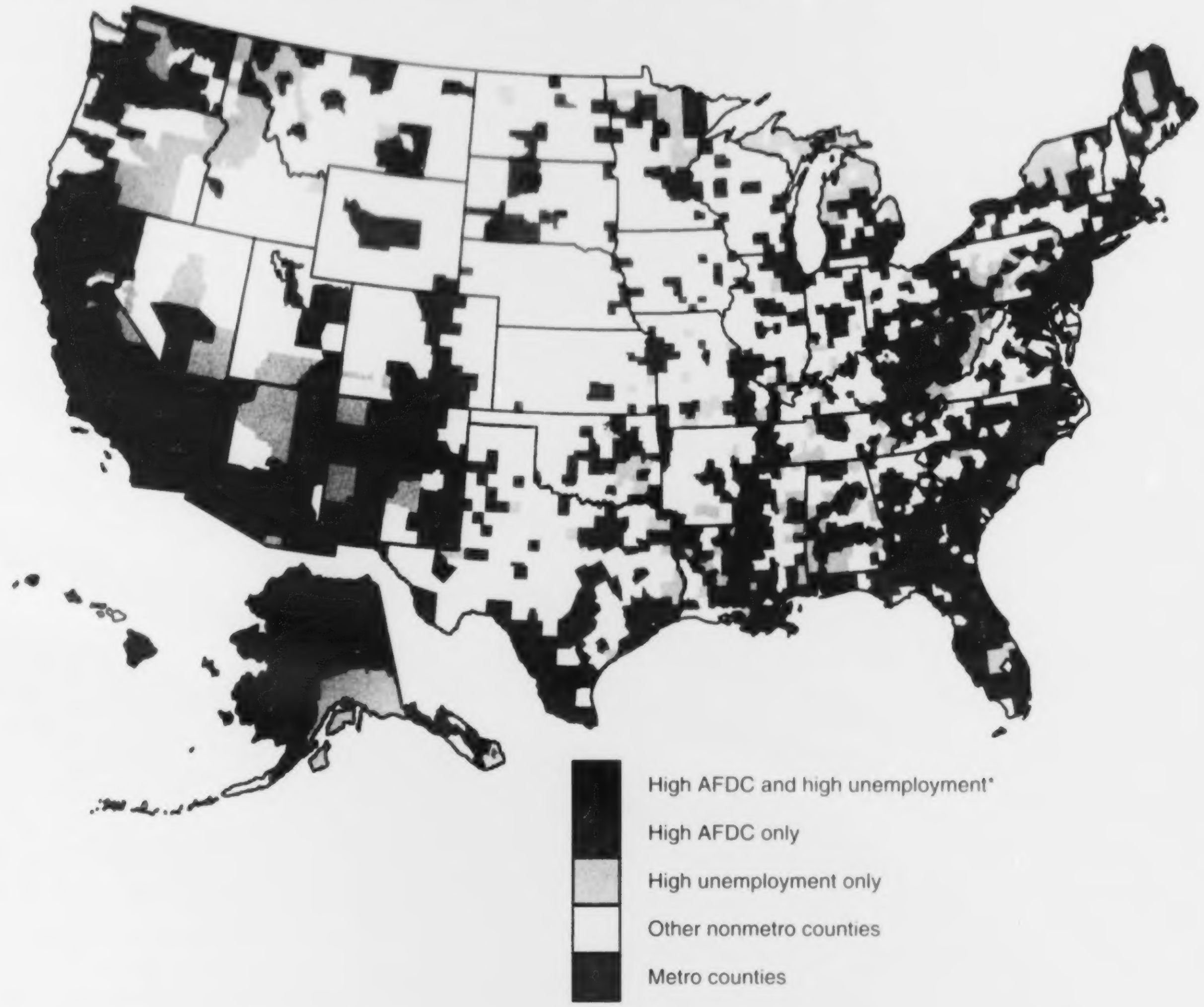
Seventy-five percent of these remaining funds will go to the individual States, Commonwealths, Territories, and the District of Columbia. Allocations will be made according to a formula that gives equal consideration to a State's share of the total number of poor people nationally and the number of adult recipients of TANF assistance (fig. 2). Each State must submit a plan for administering the Welfare-to-Work grant for approval by the Secretary of Labor and must provide $1 of non-Federal funding for every $2 of Federal funds. Governors are responsible for administration and for coordinating with the separate TANF block grants.

The States must direct 85 percent of the grants to local private industry councils (established under the Job Training Partnership Act and called workforce development boards in some places). These councils, in combination with the chief elected officials, are responsible for overseeing or administrating programs within geographical jurisdictions known as service delivery areas. At least 50 percent of the allocations to these delivery areas must be distributed to areas of high poverty. The other half is parceled out according to num-

Figure 1

Rural counties with high AFDC dependency and high unemployment rates, 1995

Over 60 percent of high welfare-dependent counties also have high unemployment rates



* High equals top 25 percent of U.S. counties.

Source: Estimated by ERS using data from 1990 Census, Bureau of Labor Statistics, Bureau of Economic Analysis, and Social Security Administration.

bers of adults receiving TANF assistance for 30 months or more and the number of unemployed.

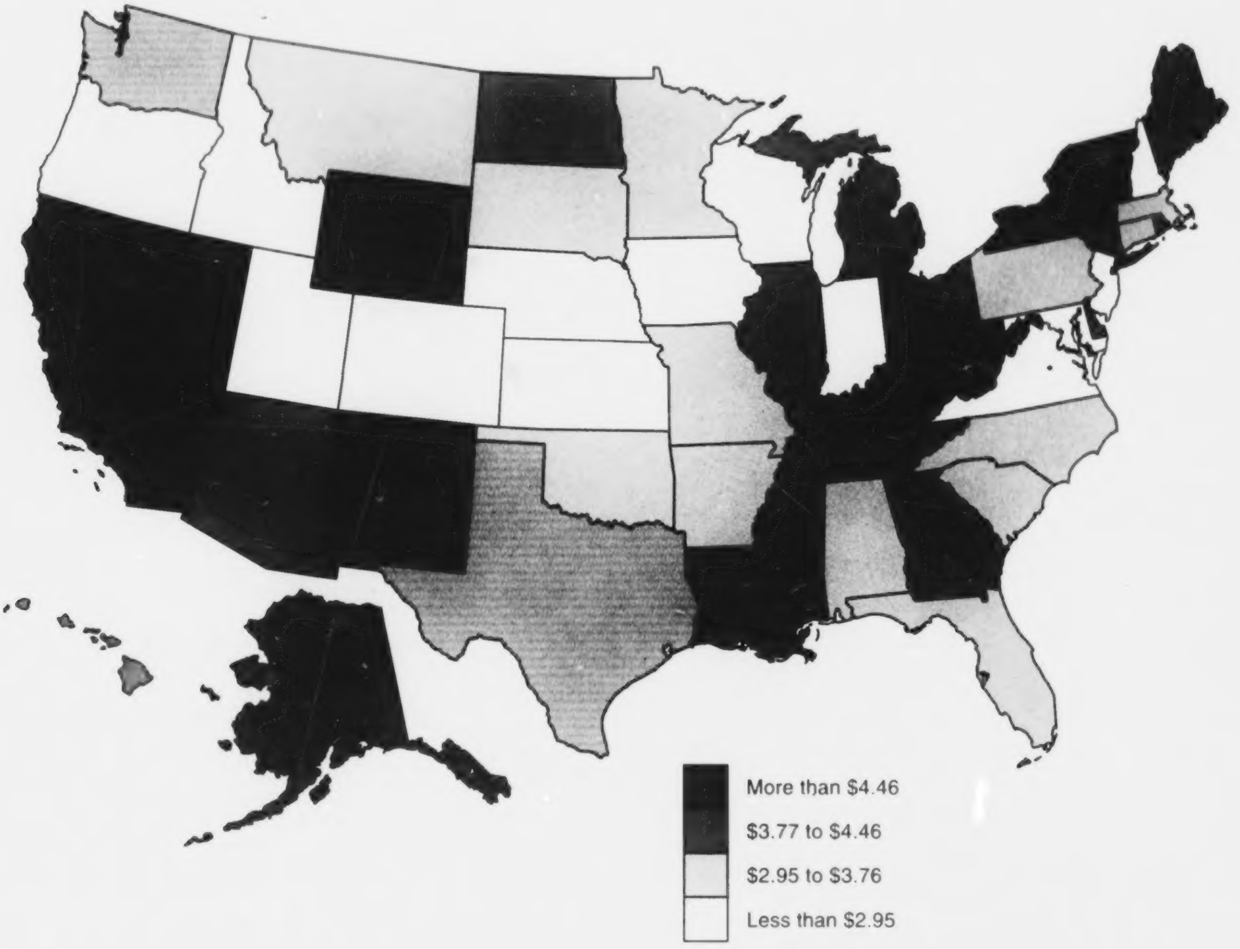
The Secretary of Labor, in consultation with the Secretary of Health and Human Services, the National Governors' Association, and the American Public Welfare Association, will develop performance measurements on the basis of job placement, duration of that placement, increase in earnings, and similar factors which will be used to distribute the performance bonuses to States in fiscal year 2000, if the program funding is extended.

Local governments, private industry councils, community action agencies, and other private entities may compete for grants from the 25 percent of funds not allocated by formu-

Figure 2

Welfare-to-Work State formula grants, per capita, fiscal year 1998

Largest per capita grants go to States in Appalachia, the gulf coast, and the western regions



Source: Calculated by ERS using 1998 funding estimates from the U.S. Department of Labor and 1996 population estimates from the Bureau of the Census.

la to the States. Areas with high concentrations of poverty will be given special consideration by the Secretary of Labor.

Welfare-to-Work Grants Should Help Welfare Recipients Find and Retain Jobs

Welfare-to-Work grants are directed toward the very core of the unemployed and welfare recipients. A minimum of 70 percent of any grant—whether State formula or competitive—must target individuals who are long-term welfare recipients, who will lose TANF benefits within a year, or who are noncustodial parents of minors whose custodial parent meets these criteria. In addition, the individual who fulfills one of those requirements must also face two out of three additional barriers: (1) lack of high school diploma or GED and low reading or math skills, (2) require substance abuse treatment for employment, and (3) poor work history. The other 30 percent of the grant may be used to help individuals, such as recent recipients of TANF who have characteristics of long-term dependency, such as school dropout, teen pregnancy, or poor work history.

Many residents of rural areas—whether "up the hollow" in Appalachia, in the rickety shacks of the Black Belt or Mississippi Delta, or in migrant labor camps—meet these criteria. The problem faced by States, private industry councils, and other entities is how to use Welfare-to-Work grant funds. Initiative and imagination can be rewarded. The goal is to create jobs and to place welfare recipients in those jobs. This may require public- or private-sector wage subsidies, teaching good work habits, on-the-job training, placement and post-employment services, community service jobs if necessary, and counseling support for job retention.

Welfare-to-Work grants may well be considered a lifeline thrown out to those individuals on whom most of society has given up. States are moving to qualify for these grants.

Other Welfare Modifications

The Personal Responsibility and Work Reconciliation Act of 1996 (P.L. 104-193) did not specifically address whether Federal labor laws covered welfare recipients who entered the workplace. Early in 1997, the *Washington Post* wrote of instances of hotel workers who received $30 a week in wages, in addition to welfare benefits of $410 a month. Employers argued that they could not otherwise take on the burden of unskilled new employees without this monetary advantage. Their opponents responded that this system created two classes of workers and provided employers with the temptation to fire regular employees and replace them with welfare recipients. To remove any confusion, the Department of Labor issued a guideline on May 22 which said that labor legislation did indeed apply to welfare recipients entering the workplace. These included the Fair Labor Standards Act—covering minimum wages and child labor for example—the Occupational Safety and Health Act, unemployment insurance coverage, and the various antidiscrimination acts.

Recognizing the financial problems of many families with children whose income was too high to qualify for assistance but too low to be able to afford medical insurance, the Federal Government moved to give the States $20 billion over 5 years to expand Medicaid coverage, buy private insurance policies, or as New York and seven other States had already done, set up their own programs.

The Balanced Budget Act of 1997, along with establishing the Welfare-to-Work program, also modified sections of P.L. 104-193. It restored Supplemental Security Income (SSI) cash benefits to legal immigrants resident in the United States on August 22, 1996, who were disabled at that time or became so later. It decreed that Medicaid coverage would be continued for disabled children who might have lost SSI benefits as a result of eligibility changes under P.L. 104-193. It permitted States to exempt from work requirements up to 15 percent of able-bodied food stamp recipients ages 18 to 50 who have no dependents. It also forbade States from assigning to private entities the responsibility of deciding who is eligible for food stamps or Medicaid.

Funding for Job Training Partnership Act (JTPA) programs has been increased by $518 million above last year's total. JTPA programs include Adult Job Training ($955 million), Youth Training ($130 million), Summer Youth Employment ($871 million), Dislocated Workers ($1.4 billion), and Job Corps ($1.2 billion). Although they are not welfare programs, these programs should complement the new welfare-to-work program since they provide valuable training and job experience to help economically disadvantaged individuals, including welfare recipients. Also complementing the welfare-to-work transition are the tax changes benefiting low-income populations (see article on Tax Policy). *[Lowell Dyson, 202-694-5348, lkdyson@econ.ag.gov]*

Welfare-to-Work Grants as Contained in Balanced Budget Act of 1997
Key Provisions

Supplements to TANF for the hardest-to-employ welfare recipients

Target the estimated 20 percent of welfare recipients most at risk of long-term dependency.

Provide a "Work First" approach, including employment activities such as work experience, on-the-job training, and subsidized employment.

Provide supportive service such as child care, substance abuse treatment, emergency or short-term housing assistance, and transportation assistance.

Provide subsidized transitional work.

Funding

$1.5 billion earmarked in each fiscal year 1998 and 1999.

Nearly 75 percent of total goes to States by formula.

Nearly 25 percent goes as competitive grants directly to local governments, private industry councils, and private entities.

One percent set aside for Indian tribes, 0.8 percent for evaluation, $100 million for performance bonuses to successful States.

The Changing Face of Rural Development Assistance in USDA

USDA's rural development program has changed significantly as a result of the National Performance Review, the Government Performance and Results Act of 1993, USDA's reorganization in 1994, and major farm legislation of 1996. The new Rural Development Mission Area more efficiently uses State and local input and coordinates new initiatives and reforms to target more funds to pressing problems.

While not alone among Federal Departments in having responsibility for assisting rural areas, USDA provides a significant amount of aid, and its assistance tends to be more targeted to rural areas than that of other Federal Departments. Moreover, USDA is, by law, charged with leading and coordinating Federal rural development assistance. Over time, the ways in which USDA has assisted rural America have changed. Earlier in this century, "rural development" was roughly equal to "agricultural development." No more. Today, rural America's diversity of resources and needs requires a much more holistic response. Likewise, the public's expectations of what government should do, how it should do it, and how much it should cost also require a different response. Together, changes in the rural and governmental contexts are causing USDA to evolve its philosophy and organization for delivering rural assistance.

Forces of Change

USDA Reorganization. Following the recommendations from Vice President Al Gore's National Performance Review, Mike Espy—then Secretary of Agriculture—established four key principles for USDA's reorganization: (1) improve the delivery of service to customers, (2) remain consistent with mandated missions, (3) make a better place for employees, and (4) save the taxpayers money. These principles were embedded in the subsequent reorganization, established by the Federal Crop Insurance Reform and Agriculture Reorganization Act. Signed into law in October 1994, this act restructured USDA and established seven "mission areas" based on the Department's primary missions. The act also realigned many programs and reduced the number of USDA agencies. Agencies such as the Farmers Home Administration, the Rural Electrification Administration, the Rural Development Administration, and the Agricultural Cooperative Service were renamed and reorganized as part of the new Rural Development Mission Area.

The act also affects the field presence of USDA rural development agencies. Since the 1930's, USDA has had field staff in every rural county, usually with separate offices for credit, conservation, and farm programs. Consistent with the reorganization, some 1,300 county offices have been closed or moved for consolidation. The goal is to have 2,550 consolidated "service centers" (colocations of the Farm Service Agency, the Natural Resources Conservation Service, and Rural Development) by 2002 (all years in this article are fiscal years, unless otherwise indicated).

Following the reorganization, staffs in USDA's rural development agencies have been significantly reduced. As of 1998, the staff levels for the programs making up USDA's three main rural development agencies—the Rural Utilities Service (RUS), the Rural Housing Service (RHS), and the Rural Business-Cooperative Service (RBS)—will have decreased by about 24 percent overall from their 1993 ceilings, with most of the decline coming from the Rural Housing Service, which accounts for about 85 percent of the combined staff of these agencies.

1996 Farm Legislation. Title VII—Rural Development—of the Federal Agriculture Improvement and Reform Act of 1996 authorized several significant changes to the rural development efforts of USDA. The most significant are described below.

First, it created the Rural Community Advancement Program (RCAP). The objectives of RCAP identified in the legislation are to "promote strategic development activities and collaborative efforts...to maximize the impact of Federal assistance," optimize resources, provide assistance in a way that recognizes the complexity of rural needs, design unique responses to address unique needs, and adopt flexible and innovative approaches to resolving rural problems. The legislation also gives priority to the smallest and poorest communities. The Rural Development Mission Area is supporting these objectives by stressing leveraging, targeting, outreach, and partnerships in the mission area's strategic plan and in the State/tribal plans.

RCAP allows State Rural Development Directors to mix, to a degree, the funding streams for community facilities, utilities, and business and cooperative development, to provide a more flexible package of assistance aimed at meeting local needs that vary over time and across the country. For the programs covered by RCAP, State Directors may transfer up to 25 percent from one account to another, as long as the amount transferred nationally does not exceed 10 percent of total RCAP funds allocated. In the past, these programs were funded on an individual basis and unused money could not be transferred from one program to another. The rationale for the more flexible approach is to allow funds that were traditionally bound by "stove-pipe" allocations to be used more effectively.

Under this program, Rural Development State Directors are required to prepare individual State strategic plans that outline the use of USDA Rural Development resources in the State as well as plans for each Federally recognized Indian tribe in the State. In preparing the plans, Directors are required to actively seek out and involve public and private institutions and individuals. The objective of the planning is to develop a 5-year strategic plan and include a reasonable set of strategies and actions for the effective delivery of USDA rural development resources, singularly and in partnership with others. The plan is to focus on improving the physical, social and economic conditions of the rural and small towns in the State. Priority is to be given to communities and areas of greatest need. Assistance provided under RCAP must be consistent with the plans.

Second, the act created the Fund for Rural America, which provides a significant amount of funds ($100 million annually for 3 years initially) for a wide range of rural development assistance and research. The fund is divided into thirds, with one-third going respectively to rural development programs, rural development research, and rural development programs or research at the Secretary's discretion. The first of the 3 years' worth of funding became available January 1, 1997, minus $20 million in rescissions that provided supplemental disaster aid. The next two $100 million infusions are scheduled to be received on October 1, 1998, and 1999, respectively. (See article on General Assistance.)

Finally, the act requires the Secretary of Agriculture to establish and chair a Rural Development Interagency Working Group for the purpose of establishing rural policy, coordinating assistance, and evaluating performance of Federal rural assistance. The group will meet in fiscal year 1998.

Government Performance and Results Act. The Government Performance and Results Act of 1993 (GPRA) is another force affecting USDA's rural assistance efforts. The act, which requires agencies to measure and account for the results of their efforts, is the stimulus for USDA's new strategic plan and various reinventing efforts throughout the Department, including rural development efforts.

The New Face of Rural Development

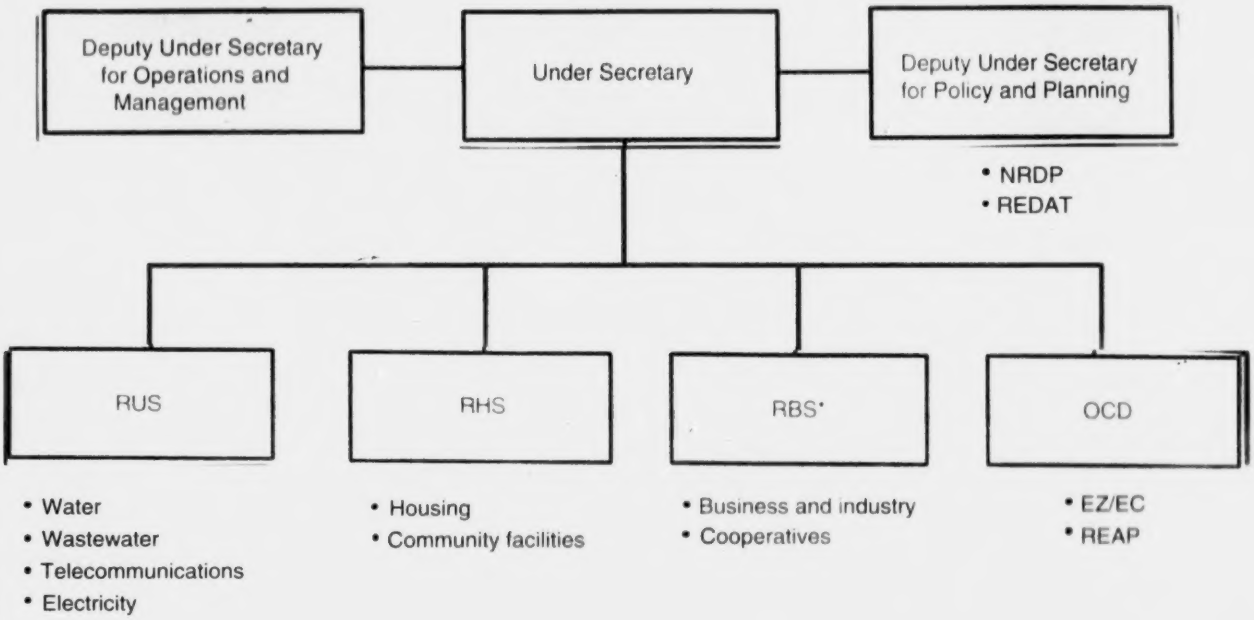
The Rural Development Mission Area's goal, as stated in its mission statement, is to "Enhance the ability of rural communities to develop, to grow, and to improve their quality of life by targeting financial and technical resources in areas of greatest need with activities of greatest potential." In addition to the three main agencies within the Rural Development Mission Area, there is a newly created Office of Community Development (fig. 1).

Rural Utilities Service. The Rural Utilities Service (RUS) administers electric, telecommunications, and water and waste programs formerly operated by the Rural Electrification Administration and the Rural Development Administration. These programs provide technical assistance, grants, loans, and loan guarantees for the infrastructure necessary to improve the quality of life and promote economic development in rural America. (A detailed list of these and other USDA rural development programs is provided at the end

Figure 1

Organization chart for the Rural Development Mission Area

The three main program agencies (RUS, RHS, and RBS) are complemented by activities of the two Deputy Under Secretaries and the new Office of Community Development



Note: RUS = Rural Utilities Service, RHS = Rural Housing Service, RBS = Rural Business-Cooperative Service, OCD = Office of Community Development, EZ/EC = Empowerment Zones/Enterprise Communities, REAP = Rural Economic Area Partnership, NRDP = National Rural Development Partnership, REDAT = Rural Economic Development Action Team.

*Not shown is the Alternative Agricultural Research and Commercialization Corporation, which is essentially an autonomous entity.

Source: Rural Development Mission Area.

of this article.) The RUS also coordinates the Water 2000 initiative, which has a goal of providing clean, safe, and affordable drinking water to all rural homes by the year 2000.

Rural Housing Service. The Rural Housing Service (RHS) administers community facilities and housing programs formerly operated by the Rural Development Administration and the Farmers Home Administration. These programs help finance new or improved housing for over 65,000 moderate-, low-, and very-low-income families each year. The programs also help rural communities finance, construct, enlarge, or improve fire stations, libraries, hospitals, medical clinics, industrial parks, and other community facilities. The RHS also plays a key role in the National Partnership for Homeownership initiative.

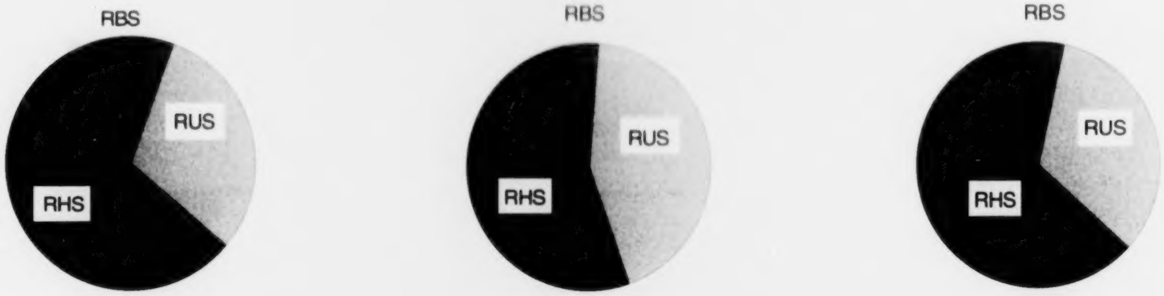
Rural Business-Cooperative Service. The Rural Business-Cooperative Service (RBS) administers programs, formerly administered by the Rural Development Administration, the Rural Electrification Administration, and the Agricultural Cooperative Service, that provide credit and assistance to rural businesses and cooperatives. The RBS partners with the private sector and community-based organizations to provide financial assistance and business planning. It also provides technical assistance to rural businesses and cooperatives and helps fund projects that create or preserve jobs in rural areas.

In 1998, the budget authority for these three agencies' (RUS, RHS, and RBS) programs, combined, was $1.6 billion. However, because many of their programs provide loans and guarantees, the total program assistance level is estimated to be about $9.9 billion. The Rural Housing Service accounts for the majority of the Rural Development budget (fig. 2).

Figure 2

Rural Development Mission Area budget by agency and type of assistance, fiscal year 1998*

The Rural Housing Service accounts for the majority of the rural development budget



Loans and guarantees ($8.2 billion)

Grants ($1.2 billion)

Budget authority** ($2.1 billion)

Note: RUS = Rural Utilities Service, RHS = Rural Housing Service, RBS = Rural Business-Cooperative Service.
*Excludes the Alternative Agricultural Research and Commercialization Corporation.
**Includes $509 million in salaries and expenses of RUS, RBS, and RHS.
Source: 1999 Budget Summary, U.S. Department of Agriculture.

Office of Community Development. The mission of the Office of Community Development (OCD) is "to create self-sustaining, long-term economic development in areas of pervasive poverty, unemployment, and general distress, and to demonstrate how distressed communities can achieve self-sufficiency through innovative and comprehensive strategic plans developed and implemented by alliances among private, public, and nonprofit entities." OCD's primary activity is administering USDA's portion of the Empowerment Zone/Enterprise Community program. The EZ/EC program, a presidential initiative, provides technical assistance, block grants, tax credits, and priority consideration for Federal programs to specially designated high-poverty communities. OCD also works with Champion Communities (communities that were eligible and applied for EZ/EC designation but were not selected) to assist them in implementing their strategic plans that were developed when applying for designation.

In addition, OCD oversees the Rural Economic Area Partnership (REAP), an initiative assisting distressed multicounty areas in the Northern Great Plains, and several other initiatives that help communities in distressed regions, including the Southwest Border and the Lower Mississippi Delta initiatives.

Other Activities and Initiatives

In addition to these agencies and programs, the Rural Development Mission Area carries out other important activities and initiatives.

Rural Economic Development Action Team. The Rural Economic Development Action Team (REDAT) comprises representatives from the Rural Development; Research, Education, and Economics; and Natural Resources and Conservation mission areas of USDA. Its purpose is to coordinate activities and improve the effectiveness of the Department's rural assistance.

National Rural Development Partnership. The goals of the National Rural Development Partnership (NRDP), begun in 1990 by presidential initiative, are to improve the coordination of rural development programs, to serve as a catalyst in promoting rural interests, and to be a broker among the multisector interests and institutions involved in effecting rural development projects. The partnership works through State Rural Development Councils (established now in 38 States), which are composed of Federal, State, tribal, and local government officials and private sector representatives. The National Rural Development Council is composed of representatives of Federal agencies and non-profit organizations and serves as an advisory board to the partnership, providing national expertise and assistance with regulations, legislation, program advocacy, national linkage, and coordination.

Northwest Timber Adjustment Initiative. This initiative provides funding and technical assistance to timber-dependent communities in the Pacific Northwest. It is part of a larger presidential initiative that coordinates efforts across Federal agencies and targets communities affected by changes in Federal land use regulations.

Water 2000. This initiative targets basic drinking water improvements to lower income families in distressed rural communities. About $1.3 billion in loans and grants have been committed to 1,000 high priority safe drinking water projects over the last 3 fiscal years.

President's National Partnership for Homeownership. The goal of this interdepartmental initiative is to help 8 million new families become homeowners by the year 2000. A major focus is to help more rural women become homeowners.

Bringing the Information Superhighway to Rural America. As part of the Administration's efforts to help create the Information Superhighway, USDA (primarily through the Rural Utilities Service) is taking steps to ensure that rural areas are "connected" to advanced telecommunications technologies and the information they bring.

Alternative Agricultural Research and Commercialization Corporation. This corporation operates essentially as an autonomous organization, making equity investments in rural businesses to assist in technological development and commercialization of industrial (nonfood, nonfeed) uses for agricultural and forestry materials and animal byproducts. It received $7 million in Federal funds in 1998.

North American Development Bank (NADBank)/Community Adjustment and Investment Program (CAIP). Through the Business and Industry Guaranteed Loan Program, the CAIP provides credit to businesses in communities in the United States that are evidencing significant job losses due to changes in trade patterns with Canada or Mexico after passage of the North American Free Trade Agreement. The goals of the CAIP are to assist private companies in creating and retaining job opportunities in impacted areas, leverage private sector business lending, and focus resources into the most significantly affected areas.

Armament Retooling and Manufacturing Support (ARMS) Initiative. Through a Memorandum of Understanding with the United States Army, the Business and Industry Guaranteed Loan Program is providing financial assistance to facilitate commercial firms' use of specified ammunition manufacturing facilities. RBS provides the programming and administrative services necessary and convenient to process applications for loan guarantees, the guaranteed repayment of the loans, and provides other services required to administer the ARMS Initiative Loan Guarantee program.

Delta Initiative. In 1996, the Rural Development Mission Area began this initiative to help address the needs of communities in the Lower Mississippi Delta region, one of the poorest areas in the United States. USDA awarded a contract for $200,000 to the Housing Assistance Council (HAC) to work with the communities in the area to develop a strategy that (1) identifies successful projects building on existing plans and community efforts, (2) strengthens the capacity of nonprofit organizations to undertake community-based development work in the region, and (3) leverages capital to facilitate a long-term regional collaborative effort. With input from town meetings and consultations, HAC developed a strategic plan identifying barriers to economic growth and recommending actions that might overtake those barriers. A "Delta Compact" has been drafted as a living document committing resources of several Delta institutions to the priority projects identified in the strategic plan. To date, 12 organizations have committed resources to the region under the "Delta Compact."

Colonias Initiative. Through a collaboration of USDA's Rural Development Mission Area, the Bank of America, and the Ford Foundation, this initiative will provide assistance to extremely poor individuals with poor housing and lacking running water and sewer who live along the Mexican border. The primary objective is to design and implement two resident-led community development models that hold promise for producing lasting improvements in five selected Colonias in New Mexico, Texas, and Arizona. Secondary objectives include simplifying access to technical and financial services for comprehensive development strategies and identifying ways in which the Bank of America's regular, profit-oriented activities can be mobilized to encourage development in these communities. The partners have committed $250,000 ($50,000 per Colonia) for the first year, contracting with two intermediaries (the Housing Assistance Council, a national housing organization, and Valley Interfaith, a community-based organization in the region) to implement the demonstration.

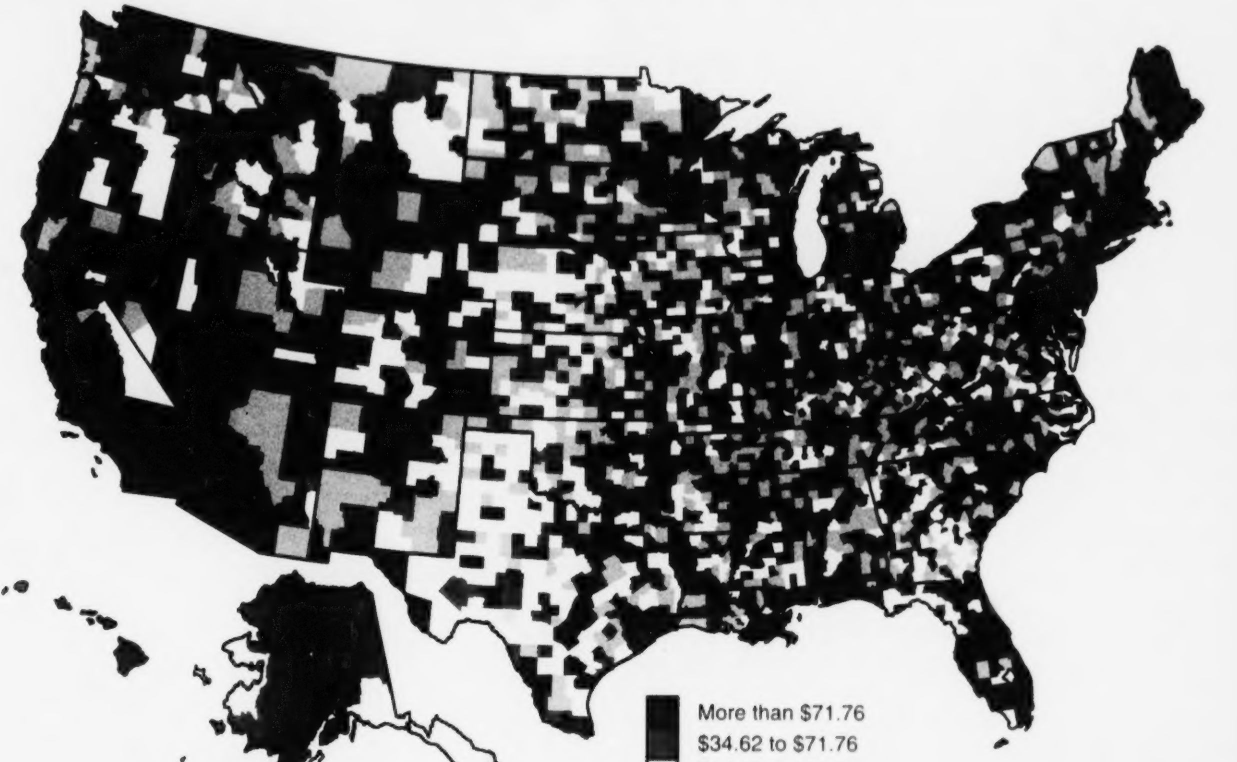
Geographic Distribution of Program Benefits

Various factors affect the distribution of rural development program benefits, including eligibility and selection criteria, which may vary from program to program, and priorities,

Figure 3

USDA Rural Development mission program funding, per capita, fiscal year 1996

Most rural counties received some assistance from USDA's rural development programs



Note: Includes Rural Development mission programs with more than $10 million funding in 1996; excludes electric and telecommunications programs.
Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

which may vary from State to State. Conditions and priorities will also change from year to year, affecting the geographic distribution. Although we do not have accurate county-level data for all of USDA's rural development programs, we do have data for most of the large programs belonging to the Rural Development mission area, including the main housing and business assistance programs and the water and waste disposal program (electric and telephone programs are excluded). When these are added together for allocations in 1996, including loans, guarantees, and grants, we see that much of rural America received at least some assistance, but the assistance varies significantly across the country (fig. 3).

Rural Development Efforts Elsewhere in USDA

The Rural Development Mission Area is not the only entity within USDA with rural development responsibilities and programs. Other agencies, including the Forest Service, the Natural Resources Conservation Service, and the Cooperative State Research, Education, and Extension Service, have rural development programs. These programs are discussed elsewhere in this report (see General Assistance). Other USDA agencies, such as the Economic Research Service, have programs of research or assistance that support rural development activities.

Finally, the recent USDA-wide sustainable development effort stands to significantly affect rural development. Sustainable development requires that short-term economic growth be consistent with long-term economic, institutional, and environmental developments so that it can be sustained over the long run. In September 1996, Secretary Glickman took steps to formalize the pursuit of sustainable development within USDA by appointing a Director of Sustainable Development and creating the USDA Sustainable Development Council. The director is charged with leading and coordinating cross-mission area work in sustainable development and representing the Department in both domestic and international arenas on sustainable development issues. The council, comprising representatives from each of the agencies and chaired by the director, serves as a forum for policy and program development, implementation, and evaluation on issues relating to sustainable development. It also provides a framework and mechanism for integrating across mission areas and program activities.

USDA Rural Development Mission Programs

Rural Utilities Service Programs

Water and Waste Disposal Loans

Purpose: To develop water and waste disposal (including solid waste disposal and storm drainage) systems in rural areas and towns with populations not in excess of 10,000. The funds are available to public entities, such as municipalities, counties, special-purpose districts, Indian tribes, and corporations not operated for profit. RUS also guarantees water and waste disposal loans made by banks and other eligible lenders.

Water and Waste Disposal Grants

Purpose: To reduce water and waste disposal costs to a reasonable level for rural users. Grants may be made for up to 75 percent of eligible project costs in some cases. The same types of applicants are eligible for grants as they are for loans.

Technical Assistance and Training Grants

Purpose: To make grants to nonprofit organizations to provide technical assistance and training to associations on a wide range of issues relating to the delivery of water and waste disposal service.

Solid Waste Management Grants

Purpose: To make grants to public and private nonprofit organizations for providing technical assistance and training to associations to reduce or eliminate pollution of water resources and improve planning and management of solid waste facilities. This assistance is available in rural areas and towns with a population not in excess of 10,000.

Emergency Community Water Assistance Grants

Purpose: To assist rural communities that have had a significant decline in quantity or quality of drinking water. Grants can be made in rural areas and cities or towns with a population not in excess of 5,000 and a median household income not in excess of 100 percent of a State's nonmetro median household income. Grants may be made for 100 percent of project costs. The maximum grant is $500,000 when quantity or quality of water significantly declined within 2 years or $75,000 to make emergency repairs and replacement of facilities on existing systems.

Rural Water Circuit Rider Technical Assistance

Purpose: To provide technical assistance for the operation of rural water systems. The RUS, through contracting, has assisted rural water systems with day-to-day operational, financial, and management problems. The assistance may be requested by officials of rural water systems or the RUS. The program complements RUS's loan supervision responsibilities.

Rural Electric Loans and Loan Guarantees

Purpose: To make insured loans and guarantees of loans to nonprofit and cooperative associations, public bodies, and other utilities. Insured loans primarily finance the construction of facilities for the distribution of electric power in rural areas. Guaranteed loans primarily finance generation and bulk transmission facilities for power supply borrowers.

Rural Telephone Loans and Loan Guarantees

Purpose: To make long-term direct loans to qualified organizations for the purpose of financing the improvement, expansion, construction, acquisition, and operation of telephone lines, facilities, or systems to furnish and improve telephone service in rural areas.

Rural Telephone Bank Loans

Purpose: To provide supplemental financing to extend and improve telephone service in rural areas.

Distance Learning and Medical Link Grants

Purpose: To encourage, improve, and make affordable the use of telecommunications, computer networks, and related technology for rural communities to improve access to educational and/or medical services. Maximum amount of grant is $350,000.

Deferment on Loan Payments for Rural Development Projects

Purpose: To promote economic or community development by allowing RUS electric or telecommunications borrowers to defer insured or direct RUS loan payments equal to eligible investments.

Rural Housing Service Programs

Community Facilities Loans

Purpose: To construct, enlarge, extend, or otherwise improve community facilities providing essential services in rural areas and towns with a population of 20,000 or less. The funds are available to public entities, such as municipalities, counties, special-purpose districts, Indian tribes, and corporations not operated for profit. RHS also guarantees community facility loans made by banks or other eligible lenders.

Homeownership Loans

Purpose: To aid low- and moderate-income rural residents to purchase, construct, repair, or relocate a dwelling and related facilities.

Rural Rental Housing Loans

Purpose: To allow individuals or organizations to build or rehabilitate rental units for low-income and moderate-income residents in rural areas.

Rental Assistance

Purpose: To reduce out-of-pocket cash that very-low-income and low-income families pay for rent, including utilities.

Home Improvement and Repair Loans and Grants

Purpose: To enable very-low-income rural homeowners to remove health and safety hazards in their homes and to make homes accessible for people with disabilities. Grants are available for people 62 years old and older who cannot afford to repay a loan.

Self-Help Housing Loans

Purpose: To assist groups of six to eight low-income families in helping each other build homes by providing materials, site, and the skilled labor they cannot furnish. The families must agree to work together until all homes are finished.

Rural Housing Site Loans

Purpose: To buy adequate building sites for development into a desirable community by private or public nonprofit organizations.

Farm Labor Housing Loans and Grants

Purpose: To enable farmers, public or private nonprofit organizations, and units of State and local governments to build, buy, or repair farm labor housing in either dormitory or multifamily apartment style.

Congregate Housing and Group Homes

Purpose: To provide living units for persons with low incomes and moderate incomes and for those age 62 or older.

Housing Preservation Grants

Purpose: To provide qualified public nonprofit organizations and public agencies with grant funds for effective programs to assist very-low- and low-income homeowners to repair and rehabilitate their homes in rural areas and to help rental property owners and co-ops repair and rehabilitate their units if they agree to make such units available to low- and very-low-income persons.

Rural Business-Cooperative Service Programs

Business and Industry Guaranteed Loan Program

Purpose: To improve, develop, or finance business, industry, and employment and improve the economic and environmental climate in rural communities, including pollution abatement and control. This purpose is achieved through bolstering the existing private credit structure through guarantee of quality loans that will provide lasting community benefits. The guarantee authority is not intended to be used for marginal or substandard loans or to "bail out" lenders having such loans. This type of assistance is available only to businesses located in rural areas. The terms 'rural' and 'rural area' mean a city, town, or unincorporated area that has a population of 50,000 inhabitants or less, other than an urbanized area immediately adjacent to a city, town, or unincorporated area that has a population in excess of 50,000 inhabitants.

Business and Industry Direct Loan Program

Purpose: To improve, develop, or finance business, industry, and employment and improve the economic and environmental climate in rural communities, including pollution abatement and control. This purpose is achieved through loans that will provide lasting community benefits. Although there is a requirement that borrowers are not able to obtain credit from other lenders at reasonable rates and terms, it is not intended that the B&I Direct Loan authority will be used for marginal or substandard loans. This type of assistance is available only to businesses located in rural areas. The terms 'rural' and 'rural area' mean a city, town, or unincorporated area that has a population of 50,000 inhabitants or less, other than an urbanized area immediately adjacent to a city, town, or unincorporated area that has a population in excess of 50,000 inhabitants.

Intermediary Relending Program Loans

Purpose: To finance business facilities and community development projects not within the outer boundary of any city having a population 25,000 or more. This is achieved through loans made by RBS to intermediaries that provide loans to ultimate recipients for business facilities and community development projects in rural areas.

Rural Business Enterprise Grants

Purpose: To assist public bodies and nonprofit corporations to finance and facilitate development of small and emerging private business enterprises located in rural areas. The terms 'rural' and 'rural area' mean a city, town, or unincorporated area that has a population of 50,000 inhabitants or less, other than an urbanized area immediately adjacent to a city, town, or unincorporated area that has a population in excess of 50,000 inhabitants.

Rural Business Opportunity Grants

Purpose: To assist public bodies, nonprofit corporations, Indian tribes, and cooperatives for planning, technical assistance, entrepreneurial training and leadership, and the creation of business support centers. A proposed rule defining program eligibility criteria was published in the Federal Register on February 3, 1998.

Rural Economic Development Loans and Grants

Purpose: To promote rural economic development and job creation projects through loans to RUS electric and telecommunication borrowers, including funding for project feasibility studies, startup costs, incubator projects, and other reasonable expenses for the purpose of fostering rural development. Maximum amount of grant or loan is $375,000 and $750,000, respectively. Maximum term of loan is 10 years at zero-interest rate.

Cooperative Service

Purpose: To promote the understanding and use of the cooperative form of business as a viable option for agricultural producers and other rural residents. To foster and support the cooperative business form. To provide knowledge to improve the effectiveness and performance of the Nation's cooperative business.

Rural Cooperative Development Grant Program

Purpose: To establish and operate centers for rural cooperative development. To improve economic conditions of rural areas by promoting development and commercialization of new services, products, processes, and enterprises.

Office of Community Development Programs

Rural Empowerment Zones/Enterprise Communities

Purpose: To revitalize rural communities in a manner that attracts private-sector investment and thereby provides self-sustaining community and economic development. A total of 33 Round I rural Empowerment Zones (EZ's) and Enterprise Communities (EC's) were designated in December 1994 and their benefits consisted of tax incentives and title XX Social Service Block Grants. Five Round II rural EZ's will be designated in 1998. To date, benefits include tax incentives, but no grants have yet been allocated. *[Tom Rowley, formerly with ERS; and Rick Reeder, 202-694-5360, rreeder@econ.ag.gov]*

The Taxpayer Relief Act of 1997 Provides Significant Tax Relief to Rural America

In August 1997, President Clinton signed into law the Taxpayer Relief Act of 1997, the tax portion of the agreement to balance the Federal budget. This legislation, perhaps the most significant tax legislation in over a decade, will provide a total net tax reduction of about $95 billion over the next 5 years. The act contained a number of general and targeted tax relief provisions that will significantly reduce Federal taxes for rural taxpayers. It provides tax relief for families through a new child tax credit and several new tax incentives for education. Savings and investment are encouraged through expanded opportunities to contribute to individual retirement accounts and reduced capital gains taxation. The act also provides substantial estate and gift tax relief, especially to farmers and other small rural business owners. Finally, the act contains provisions that promote rural development through new rural Empowerment Zones and incentives to hire certain economically disadvantaged individuals.

The Taxpayer Relief Act of 1997, perhaps the most important tax legislation in the last decade, is expected to significantly reduce Federal taxes for farmers and other rural taxpayers. While much of the tax relief is provided to middle-income families through a new child tax credit and education incentives, lower income rural taxpayers will also benefit from expanded Empowerment Zones and increased incentives to hire economically disadvantaged individuals.

Tax Relief for Families

Child Tax Credit. The act increases tax benefits for dependent children by providing a $500 ($400 for 1998) tax credit for each qualifying child under the age of 17. The child credit is phased out at a rate of $50 for each $1,000 of modified adjusted gross income in excess of $110,000 for married taxpayers filing a joint return and $75,000 for taxpayers filing as single or head of household. The amount of the credit is generally limited to the taxpayer's regular income tax liability. However, a portion of the credit is refundable for taxpayers with three or more children. For these taxpayers, the child credit is refundable to the extent that their regular income tax liability, the employee share of Federal Insurance Contribution Act (FICA) taxes and half of their self-employment tax liability exceeds the earned income tax credit. The new child tax credit is expected to benefit nearly one-third of all rural taxpayers and their families. The average credit amount for those eligible for the credit is estimated to be about $800.

Education Tax Incentives. The act creates two new nonrefundable tax credits for qualified tuition and fees for post-secondary education. A Hope Scholarship Credit of up to $1,500 (all of the first $1,000 and 50 percent of the next $1,000) is allowed for each student's tuition and related expenses during the first 2 years of college. A 20-percent Lifetime Learning Credit of up to $1,000 annually ($2,000 by 2003) is available for a taxpayer's tuition and related expenses for an unlimited number of years. The act allows nondeductible contributions of up to $500 per child to an education savings account for children under the age of 18. Distributions from such an account for qualified higher education expenses are tax free. The act also allows up to $2,500 of student loan interest to be deducted for each of the first 5 years that repayment of the student loan is required. All education incentives are phased out for taxpayers whose income exceeds a specified threshold amount, which varies depending upon the particular incentive. Finally, the exclusion for employer-provided undergraduate education assistance is extended through June 1, 2000. Rural residents, especially those families with children at or near college age, will benefit from one or more of these new education tax incentives.

Savings and Investment Incentives

Individual Retirement Accounts. The act expands the availability of existing IRA's and provides a new nondeductible alternative. With regard to existing IRA's, the income that an individual who is an active participant in an employer-sponsored pension plan can earn and still make deductible IRA contributions was increased. On a joint return, the adjusted gross income limit at which deductible contributions begin to be phased out rises by $10,000 in 1998 to $50,000, and to $80,000 by 2007. For single taxpayers, the

Note: The information provided here should not be construed as USDA's providing tax advice, for which competent tax advisors/attorneys should be consulted.

amount increases by $5,000 in 1998 to $30,000, and to $50,000 by 2005. The act also allows spouses of individuals who are active participants to make their own deductible contributions, but the deduction is phased out if adjusted gross income exceeds $150,000. The new, nondeductible "Roth IRA's" allow tax-free distributions if funds are withdrawn after 5 years and the individual has reached age 59fi, died, or become disabled. Contributions are phased out for couples with adjusted gross income over $150,000 and individuals over $95,000. Annual contributions to all IRA's remain limited to a total of $2,000. The act also allows penalty-free distributions from any IRA for higher education expenses and up to $10,000 of first-time home buyer expenses.

Only individuals who are covered by employer-sponsored pension plans, and their spouses, benefit from the expanded deductibility of IRA's. Nearly all rural households will qualify for the new Roth IRA's. Nonetheless, the share of farmers and other rural taxpayers who annually contribute to an IRA is relatively small (about 9 percent of farmers in any year and about 5 percent of other rural taxpayers). Thus, unless the new retirement saving options lead to a change in saving behavior, the increased availability may not result in a significant increase in retirement savings for rural taxpayers.

Capital Gains. The act reduced the maximum tax rate on capital gains held for at least 18 months from 28 percent to 20 percent. A 10-percent capital gains tax rate applies to taxpayers in the 15-percent marginal tax bracket. Because business assets are eligible for capital gains treatment, capital gains are an important component of income for farmers. About one-third of all farmers report some capital gain income each year. This is three times the frequency for all other taxpayers and twice that for other small businesses.

The act also allows a taxpayer to exclude up to $250,000 ($500,000 if married filing a joint return) of gain on the sale of a principal residence. This new exclusion can be used as frequently as every 2 years, and replaces both the previous provision that allowed the gain to be rolled over into another residence and the $125,000 lifetime exclusion for taxpayers over 55 years of age. Most rural residents will be exempt from tax on the sale of their residence as a result of this new provision. This includes farm residences, which represent about 12 percent of the value of farms.

Tax Relief for Farmers and Other Rural Businesses

Self-Employed Health Insurance Deduction. The self-employed health insurance deduction is intended to give small business owners tax benefits similar to employees receiving employer deductible health insurance. In 1997, self-employed individuals were allowed to deduct 40 percent of the cost of providing health insurance for themselves and their families. This amount was scheduled to increase to 80 percent by 2006. The 1997 Act accelerates the scheduled increases and will allow 100 percent of the cost to be deducted by 2007. This will reduce the after-tax cost of purchasing health insurance for those farmers and other rural business owners who must purchase insurance on their own.

Alternative Minimum Tax. The act repeals the alternative minimum tax (AMT) for small corporations for tax years beginning after 1997. A small corporation is defined as a corporation with 3-year average annual gross receipts of $5 million or less for the first tax year beginning after 1996 and with annual gross receipts of $7.5 million or less for any later years. This change will allow most farm and other rural small business corporations to avoid the complexities of the alternative minimum tax.

The act also provides a lower tax rate for individual taxpayers on net capital gain for alternative minimum tax purposes. Under the change, net capital gain is taxed at the same rates that apply for regular income tax purposes. Thus, capital gain that is taxed at 20 percent for regular income tax purposes will be taxed at 20 percent for AMT purposes rather than the alternative minimum tax rate of 26 percent.

Estate and Gift Tax Relief. Only about 1 percent of all estates are subject to the estate tax. Thus, estate and gift taxes are not a major concern for most rural taxpayers. However, while the aggregate importance of estate and gift taxes may be small, the potential impact of such taxes on an individual or group of individuals, such as farmers and other small business owners, can be substantial.

Concern for the effects of Federal estate taxes on farmers and other small business owners who hold significant amounts of wealth in business assets was the primary impetus for the changes to Federal estate and gift tax laws in the 1997 Act. The act substantially increases the size of a farm or other business that can be transferred tax free by increasing the basic amount each individual can transfer tax free (the unified credit) from $600,000 to $1 million by 2006 and by providing a new exclusion for qualified family business interests of up to $675,000 in 1998. The act also makes important changes to the installment payment provision which allows taxes to be paid over a 14-year period rather than within 9 months of death. These changes include lowering the interest rate from 4 to 2 percent and increasing the size of an estate eligible for this low interest rate.

The overall effect of the 1997 changes to Federal estate and gift tax policies is that fewer farmers and other small business owners will be required to file a return or pay taxes. Those required to pay will owe less tax and will be eligible for more favorable payment terms. Thus, these changes will make it easier to transfer the family business across generations by reducing the likelihood that the business or some of its assets will need to be sold to pay estate taxes.

Special Tax Benefits for Farmers. Farmers were major beneficiaries of the 1997 Act. In addition to the general provisions, which accounted for most of the tax reduction, the act contained a number of provisions targeted specifically to farmers. These included allowing farmers to use the installment sales method of accounting for alternative minimum tax purposes, allowing farmers to defer the gain on the sale of livestock due to floods and other weather-related conditions, and temporarily restoring the ability of farmers to lower their tax liability by shifting farm income to the 3 prior tax years. The combined effect of these as well as the other changes contained in the 1997 Act, especially the capital gains and estate and gift tax provisions, is estimated to reduce Federal tax burdens for farmers by about $1.8 billion per year.

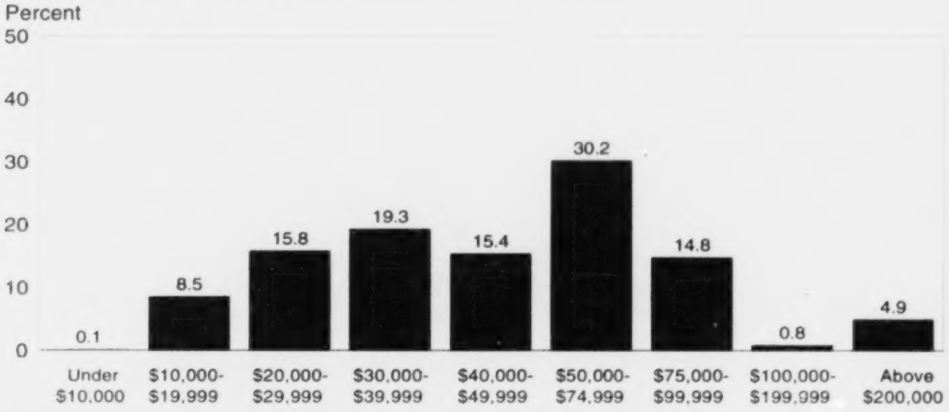
Special Tax Incentives for Low-Income People and Places

Since most of the new tax credits are not refundable and the benefits are phased out for higher income taxpayers, the primary beneficiaries of the 1997 Act are middle-income taxpayers (fig. 1). Higher income and wealthier taxpayers primarily benefit from capital

Figure 1

Distribution of tax benefits under 1997 Act for 1998

Benefits targeted to middle-income classes



Source: U.S. Congress Joint Committee on Taxation.

gains and estate and gift tax provisions. However, the 1997 Act also provides some new and expanded tax benefits targeted to low-income people and places, including incentives to hire employees from targeted groups of disadvantaged individuals or places or to encourage private enterprise development in high-poverty or distressed areas.

New Empowerment Zones. The 1997 Act authorizes the Secretaries of HUD and Agriculture to designate an additional 20 Empowerment Zones with no more than 5 of these zones to be located in rural areas. Thus, the number of rural Empowerment Zones will increase from three to eight. However, the tax incentives for the new zones are different from those available for the earlier zones (see General Assistance article).

Work Opportunity Tax Credit. The work opportunity tax credit encourages employers to hire employees from one or more of seven target groups. The seven target groups include (1) members of a family receiving assistance under the Temporary Assistance to Needy Families (TANF) program, (2) a veteran who is a member of a family either receiving AFDC assistance or assistance under a Food Stamp program, (3) an individual convicted of a felony who is hired within 1 year after conviction or release from prison and who is a member of a family whose income is 70 percent or less than the Bureau of Labor Statistics lower living standard, (4) an individual between the ages of 18 and 25 who lives within an Empowerment Zone or Enterprise Community, (5) an individual who is 16 or 17 years old who performs services for the employer between May 1 and September 15 and lives in an Empowerment Zone or Enterprise Community, (6) an individual who has a physical or mental disability that is a substantial handicap to employment, and (7) an individual between the ages of 18 and 25 who is a member of a family receiving assistance under a Food Stamp program. The credit was scheduled to expire on September 30th, 1997, but was extended by the 1997 Act for 9 months through July 1, 1998. The act also expanded the number of target groups to eight by adding a group for qualified supplemental security income recipients. The rate of the credit was also changed from 35 percent to 25 percent of wages for employment of more than 120 hours but less than 400 hours and 40 percent of wages for employment over 400 hours or more. Since the credit is higher for wages paid for employment over 400 hours, the maximum credit varies depending upon the proportion of wages eligible for the 40-percent rate. The deduction for wages paid is reduced by the amount of the credit.

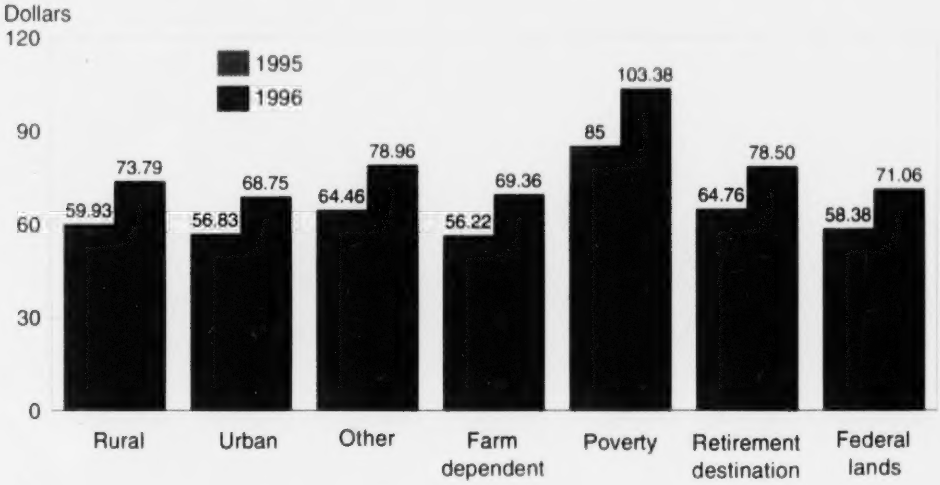
Welfare-to-Work Tax Credit. The act contains a new credit to provide employers an incentive to hire long-term public assistance recipients. The credit is equal to 35 percent of qualified first-year wages and 50 percent of qualified second-year wages. For purposes of the credit, wages are broadly defined to include not only actual wages but educational assistance covered by the tax exclusion for employer-provided tuition assistance, health plan coverage, and dependent care assistance. The credit applies to up to $10,000 per year, resulting in a maximum credit of $8,500 for the 2 years. An eligible employee must be certified as a long-term family assistance recipient by a State employment security agency. The new credit applies to employees who begin work after December 31, 1997, and before May 1, 1999. For most profitable businesses, the credit will reduce the after-tax cost of hiring a targeted employee earning $10,000 per year to about $8,000 for the 2 years. This credit is expected to assist States and localities in adjusting to the welfare reform legislation enacted in 1996 (see Welfare Reform Followup article).

Earned Income Tax Credit Developments. The 1997 Act continues recent efforts to more precisely target the earned income tax credit (EITC), a refundable tax credit available to low-income workers who satisfy certain income and other eligibility criteria. The EITC is phased out if earned income or modified adjusted gross income exceeds a specified threshold amount. The 1997 Act adds two new nontaxable items in determining income used for phasing out the benefits of the earned income tax credit. These items are tax-exempt interest and the nontaxable portion of any pension, annuity, or distribution from an individual retirement account. The new law also increases the amount of losses from a business, including farming, that are disregarded from 50 percent to 75 percent. This change will affect a relatively small number of tax credit recipients but will dispropor-

Figure 2

Per capita earned income tax credit benefits by type of State, fiscal year 1995-96[1]

1996 benefits increased significantly compared with those in 1995[2]



[1] Refundable portion of credit only.

[2] See data definitions for State classifications.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

tionately reduce benefits to farmers since over half of all farmers report a net loss for tax purposes each year.

The earned income tax credit has increased in importance for low-income rural workers with the phase-in of the 1993 expansion of the credit. For fiscal year 1997, the first year to fully reflect the full phase-in of the 1993 changes, the credit provided low-income workers and their families about $28 billion in benefits with the rural share estimated at about $7 billion. About one out of every five rural residents benefited from the credit. The credit continues to provide the greatest benefits to those States classified as persistent poverty States, with the refundable portion of the credit alone providing an average per capita benefit of $103.38 in fiscal year 1996 (fig. 2). Furthermore, despite the new targeting provisions contained in the 1997 Act, the total value of the credit is expected to continue to increase, although at a much slower rate, with the total credit estimated to reach $28.5 billion in fiscal year 1998.

Fewer Tax Policy Changes Expected in 1998

The potential for a budget surplus in fiscal year 1999 enhances the prospects for further tax reductions in 1998. The Administration has proposed tax relief to provide child care assistance for working families as well as new tax incentives to promote energy efficiency, retirement savings, and increased education expenditures. Congressional proposals include relief from the alternative minimum tax, further reductions in Federal estate and gift taxes, and a reduction in the marriage penalty. Given the increasing priority being placed on addressing the long-term solvency problem of social security, however, the amount of tax relief enacted in 1998 should be limited, especially in contrast to the 1997 legislation. *[Ron L. Durst, 202-694-5347, rdurst@econ.ag.gov]*

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Slowly Evolving Regulatory Changes Could Significantly Affect Rural Development

Regulatory changes affect development in many ways. They are often complex, with unpredictable effects that cannot be detected until significant time has elapsed. In this section, we discuss some of the more important recent regulatory changes that were announced or proposed in 1997, affecting telecommunications, electric utilities, air and water pollution, public land management, and banking and finance institutions.

Some major regulatory changes were announced or proposed in 1997, but implementation has not been a smooth process due to legal, political, and economic challenges. The most significant changes include telecommunications, electric power, air and water pollution, public land management, and banking and finance.

Implementation of the Complex Telecommunications Act of 1996 Progressing Fitfully

In the 2 years since the Telecommunications Act of 1996 became law, the Federal Communications Commission (FCC) and the courts have been shaping its implementation. Despite the many regulations that have been established, the only provisions fully implemented are those dealing with opening up the local phone market. Those provisions, however, have come under court challenge. The 2 years since the act became law have already shown many of the challenges, pitfalls, and economic potential in opening up the telecommunication market, an $800-billion market according to FCC Chairman Kennard, to full competition.

The consolidation and restructuring going on in the industry, the continued lack of meaningful competition in local phone service, and recent court rulings have all contributed to a great deal of uncertainty in the telecommunication market. A recent ruling by a Federal judge in Texas, for example, went so far as to strike down a key portion of the act, the provisions allowing the regional Bell companies to enter the long-distance service only if they had at first proved they had opened their local telephone markets to competition. This ruling had in effect been won by the regional Bell companies, the long-distance companies lost. There have been no clear winners across all rulings. Most lower court rulings are under appeal. The issues facing the courts basically fall into two groups: (1) the legality or intent of some provisions in the law and (2) challenges to the authority of the FCC.

While all provisions of the 1996 Act will affect rural areas, the universal service provisions will have the greatest direct effect. The FCC in May 1997 passed the first regulations to implement these provisions, granting rural households support (through reduced rates) for a full range of telephone services. States, however, still determine the phone rates. The funding mechanism for universal service has not yet been determined, but is expected to take effect on January 1, 1999. States may opt out of the Federal funding mechanism. For these and other reasons, the universal service provisions are not fully implemented.

The universal service provisions also include funding for school, library, and health care providers. Eligible public and private elementary and secondary schools as well as libraries will be able to buy any telecommunication service, including the Internet, at a discount. Discounts range from 20 to 90 percent of the provider's rate, based on need and high-cost (ruralness) factors. Universal support expenditures for schools and libraries are capped at $2.25 billion per year, though unspent funds can be carried forward to subsequent years. An estimated 9,600 health care providers will be eligible to receive telecommunication services supported by the universal service mechanism. All rural health care providers are eligible with support capped at $400 million per year.

These school, library, and health care provider provisions have also come under attack. For example, the universal service contributions by long-distance companies for these provisions are meant to be offset by reductions in access charges. Reduced access charges have saved the long-distance companies, according to some estimates, over $2 billion per year. The long-distance companies, however, have claimed the savings haven't been that high and are threatening to increase their rates to cover their contributions.

Another challenge to the provisions comes in the form of questioning FCC's authority to establish the two nonprofit corporations that administer the distribution of the funds.

The next year promises to be just as turbulent for the telecommunications market as the previous 2 years have been, although the market is generally expected to gradually calm down. The real winners and losers in this market adjustment process, however, will become known only later. While there has been some discussion about opening up for Congressional reconsideration some provisions in the act, the current general consensus among analysts seems to be that this will not happen anytime soon. *[Peter Stenberg, 202-694-5366, stenberg.econ.ag.gov]*

States Are Restructuring the Electric Utility Industry to Introduce Retail Competition and Consumer Choice, So Far in the Absence of Federal Legislation on These Issues

Restructuring of the electric utility industry, to create market competition and consumer choice at the retail (distribution) end of the industry, continues to move forward in State legislatures and State public utility commissions. Once accomplished, consumers should be able to purchase electric power from the least expensive available source, and have it delivered to their electric meter by their current electric distribution company—to whom customers would pay a charge to "wheel" that power to them. Electric power companies already sell power at the wholesale market level into a competitive market place. High voltage transmission systems would continue to be regulated by Government, but paid a reasonable price to "wheel" wholesale power from generating companies to retail distribution companies. Both government regulatory pressures—and competitive market pressures—appear to be moving toward a break up of most integrated power companies where a company owns power generation, transmission facilities, and retail distribution networks. The emerging model is one in which power generation firms and retail power distribution companies may be organized independently from other segments of the business.

Under proposed Federal legislation, new start-up electric power generating facilities, including power generation from renewable resources, such as wind, solar, and biomass, would be free to start up and compete for business. There would be less government regulation of electric power companies at the wholesale and distribution or retail levels of the business. The Federal Energy Regulatory Commission (FERC) would continue to license electric power plants and power companies' high voltage transmission systems, but probably would have less regulatory oversight regarding pricing and access to electric service than before deregulation. State regulatory commissions typically would also have less authority over prices and access to service.

Restructuring is largely occurring at the State level, in response to the promise of substantial reductions in retail electric utility rates. High-electric-cost States in the Northeast and the Southwest, such as New York and California, have been in the forefront of deregulation, some of which has been by action of State legislatures and some by action of State public utility commissions. At the end of 1997, 11 State legislatures had enacted restructuring legislation, and 6 State public utility commissions had issued restructuring decisions. Twenty-two more States had legislative or regulatory efforts under way to study restructuring and to propose legislation for implementation. Federal action has not yet occurred, although several comprehensive and noncomprehensive bills have been introduced into the Congress addressing restructuring and consumer choice. The U.S. Congress is expected to act on electric utility restructuring; the Administration has recently announced a comprehensive approach to restructuring legislation.

As with most industry deregulation, some participants and consumers would benefit more than others. Electric rates in high-cost regions of the country, principally the Northeast, the Southwest, and in States where large-scale nuclear power plant projects are located, seem likely to decline. That would primarily be because lower cost electric energy can be imported from low-cost regions of the country. Large users of electricity would be active in negotiating preferred electric rates. Many national manufacturing and commercial firms would negotiate master contracts to supply electricity to all their locations across the Nation. On the other hand, consumers in areas of the country with currently midrange electric rates may not see much change. In some States, rates could trend upward after industry restructuring. Some rural areas could experience reduced access to service and/or find their electric rates remain relatively high, compared with urban areas. Moreover, reliability and access to new service could decline or become more costly for some more geographically remote customers. That has been the experience with airline, rail transportation, and telecommunications deregulation, where more rural areas of the country continue to face firms that exercise significant monopoly pricing power. Finally, more competitive markets should cause electric rates in different regions of the country to move closer together. That would remove an incentive for businesses to relocate or start up in more rural areas of the country that previously enjoyed lower electric rates.

While electric utility industry restructuring may bring economic benefits to the Nation, three steps are important to assure that competition actually develops in the industry and that consumers are not left facing firms that exercise monopoly pricing power. First, establishing well-functioning futures and options markets in electric power will be important to assure competitive pricing. Second, in the more rural areas, statutory or regulatory universal service and reliability requirements will be important to assure continued access to service at an affordable price. Third, Federal and State regulatory bodies must be vigilant to assure competitive pricing of electric services in all areas of the country. *[Marvin Duncan, 202-694-5019, mduncan@econ.ag.gov]*

New Air and Water Regulations Could Significantly Affect Some Rural Areas

In July 1997, the Environmental Protection Agency (EPA) finalized regulations for more restrictive controls on ground-level ozone (which contributes to smog) and airborne particles. The new rules are aimed at reducing health risks, particularly for children and the elderly. However, complying with the new regulations could be costly for some places, particularly urban areas. The Clean Air Act requires localities to meet air quality standards by given deadlines. Failure to submit or implement plans to meet the standards could result in reductions in Federal highway aid. State and local governments might have to cut back on activities that generate this form of pollution, where possible, such as by making more use of mass-transit and other means to discourage auto commuting. Some places, particularly congested urban areas facing high levels of pollution and some rural areas with large and stationary power plants that produce excessive levels of pollution, may have to adopt strategies to reduce pollution. This might help some less polluted rural and urban areas to capture a larger share of future development.

To lessen the pain of complying with the new rules, EPA is phasing in the new control strategies over a 10-year period, and various policies are proposed to reduce compliance cost. Places that already have established strategies to comply with current regulations would not have to change to meet the new standards. For others, new standards for ozone and particulates would not begin to be applied until the years 2003 and 2005, respectively. A proposed tradable pollution allowance system would be used to provide market incentives for adoption of policies to reduce pollution. For places incapable of reducing pollution below the new standards, this tradable allowance system would help to limit their cost increases. In addition, as part of its Greenhouse Initiative, the Administration in its fiscal year 1999 budget has proposed to spend $2.7 billion on research and development of new energy-efficient technologies for autos and building materials, plus $3.6 billion in tax incentives for purchase of these energy-efficient products. This follows from an Energy Department study that claimed that the cost of developing such energy-efficient technologies might be compensated by cost savings from future reductions in energy use.

If Congress were to adopt this energy-efficiency approach and if it proved to be successful in reducing pollution costs associated with energy used in the future (neither of these if's are by any means assured), congested urban areas and their outlying rural-commuting areas, and other high-energy production and use areas (such as agriculture and mining and energy extraction areas) might benefit. Otherwise regulation-induced costs would probably rise for many of these places. However, regulation-induced pressures for less polluting autos and trucks might actually benefit some agricultural areas that produce inputs for agricultural-based ethanol, a more clean-burning fuel. Reducing ground-level ozone has the side benefit of increasing crop yields in some areas. In addition, these places would benefit from improved health associated with cleaner air. While the potential effects are great, the many uncertainties make it impossible to predict what the ultimate effects would be.

New regulatory efforts are also being proposed to restore and protect America's waterways. During the 25 years since the enactment of the Clean Water Act of 1972, the quality of the Nation's waterways has improved. Most of this has been achieved by reducing point-source pollution by communities, industries, and businesses. But nonpoint runoff pollution has escaped solution under conventional regulatory methods. Recognizing that this problem is frustrating the goal of making all waterways fit for swimming and fishing, President Clinton proposed a new Clean Water Action Plan: Restoring and Protecting America's Waters.

The Administration has asked all appropriate departments and agencies to work as a team to develop plans and set new regulations and standards for the nonpoint pollution, which is caused, to a large extent, by runoff from land and animal feeding operations. This Clean Water Action Plan has three major goals: reduce the threat to public health from water pollution; prevent polluted runoff; and achieve higher water quality on a watershed basis. EPA will provide final regulations for the runoff pollutants by March 1, 1999. National Oceanic and Atmospheric Administration (NOAA) and EPA will put in place the Nonpoint Pollution Control Programs for all 29 Coastal States by June 30, 1998.

The Action Plan calls for an additional 100,000 acres of wetlands by 2005. This plan, in concert with USDA's Buffer Initiative, will establish 2 million miles (or 35 million acres) of buffer strips that will protect waters from agricultural runoff by the year 2002. Under this plan, USDA will make sure that agricultural operations in 1,000 critical rural watersheds have the necessary technical and financial resources available to them for controlling polluted runoff. To support the Action Plan, President Clinton has asked for $568 million for fiscal year 1999, and $2.3 billion through 2003. *[Faqir Bagi, 202-694-5337, fsbagi@econ.ag.gov]*

New Public Land Use Plans Were Established for National Forests, and Legislation Amends Program Managing National Wildlife Refuge Areas

In April 1997, the Forest Service and the Bureau of Land Management announced a new land management plan covering 72 million acres of Federal forest and rangeland in eastern Oregon and Washington, most of Idaho, and small parts of Montana, Wyoming, Utah, and Nevada. According to the proposed plan, to be finalized in the spring of 1998, new, more restrictive standards would be required of anyone wishing to mine, cut timber, graze cattle, or operate recreation businesses on these lands. The new standards require examining potential effects of land use on animal and plant habitat, not only in the section of land being used, but in the entire Columbia river basin. This allows land use decisions to consider upstream and downstream effects, which may sometimes be significant. The plan would allow higher logging levels than in the past 3 years, and it proposes increases in funding that would create jobs, while helping to preserve habitat and protect endangered species.

Meanwhile, the Bureau of Land Management withdrew a policing regulation plan covering 270 million western acres that was proposed in November 1996. That plan had come under criticism for taking powers away from local authorities.

In May 1997, the Forest Service released its land management plan for the Tongass National Forest in Alaska. It would allow up to 267 million board feet of timber harvesting annually, only half the current limit but more than twice as much as actually harvested in recent years. The plan also designates portions of 32 rivers as Wild, Scenic, or Recreational and creates buffers along beaches and river mouths and increases protection for caves.

In January 1998, the Forest Service proposed a suspension on constructing and reconstructing roads that could affect 33 million acres of roadless land within 130 national forests from Idaho to southern Appalachia. The proposed suspension would last 18 months or until new analytical tools are adopted that would ensure good road construction design and better maintenance of existing roads. National Forests in the Pacific Northwest and the Tongass National Forest in Alaska were excluded from the suspension because their recently adopted forest management plans were deemed sufficient. One expected result from the road-building suspension is a small reduction in logging.

In October 1997, legislation (P.L. 105-57) amended the National Wildlife Refuge System Administration Act of 1996, providing it with a basic mission of conservation, including restoration of fish, wildlife and plants. However, hunting and recreation are also recognized as priorities. This compromise, together with new clarity of mission, is expected to engender more support for Federal management of these refuge areas, which cover 92 million acres, a larger area than the National Park System, and to play an important role in protecting plant and animal life and in providing recreation to rural and urban residents. *[Rick Reeder, 202-694-5360, rreeder@econ.ag.gov]*

Some Bank and Credit Institution Regulations Have Changed, Allowing More Branch Banking and Revising Farm Credit System Rules

Beginning June 1, 1997, the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994 permitted interstate branching through bank mergers. Only two States, Montana and Texas, passed legislation opting out of interstate branching. While interstate banking will increase the pace of bank consolidation, rural banks are typically too small to attract attention from the mostly large banks that actively participate in interstate banking. New data required by revisions to the regulations governing the Community Reinvestment Act are just now becoming available to help evaluate the extent to which large banks lend to farmers and to small businesses in rural areas served by offices of those banks. Bad publicity for banks that appear to neglect the credit needs of rural areas may encourage some large banks to increase rural lending.

In 1997, Congress again came close to revising the Glass-Steagall Act, which limits bank activity in the insurance and securities industries. During the current session, the House narrowly passed legislation, but the Senate has yet to act on this issue. Prospects for a comprehensive legislative solution are complicated by conflicts between the banking, insurance, and securities industries, and between small and large banks. Many rural and other small banks fear that removing all Glass-Steagall barriers would concentrate economic power in a few giant firms. The resulting institutions would offer a wide array of financial services, but some wonder whether they would neglect the farm and small business sectors in rural areas.

In February 1998, the banking industry won a Supreme Court decision preventing what it perceives as unfair extensions of credit union common bond requirements. However, Congress may restore much of this authority to credit unions through new legislation. Several other issues remain open from prior years. At a minimum, banks want equal tax treatment for large credit unions that serve wide portions of their communities. Banks will definitely lobby against any new attempts to gain expanded powers for Farm Credit System (FCS) institutions. Legislative proposals to improve commercial bank access to funds from the Federal Home Loan Banks and from FCS banks did not succeed in 1997. The upward trend in loan-to-deposit ratios makes it likely that similar proposals will move forward this year. It appears that rural banks generally have sufficient loanable funds, whether from deposits or from other sources, but if that situation were to change, additional sources of funds could benefit rural borrowers.

The Farm Credit Administration (FCA) is an independent agency of the Federal Government that regulates the Farm Credit System. FCA's board of directors has established regulatory reform as a major priority. Reduction of regulatory burden continued during the year. Regulatory burden was reduced through the elimination or proposed elimination of several prior-approval requirements and the deletion of several obsolete regulatory provisions identified through public comment or internal agency review. If these initiatives are successful, FCS lenders will have lower business costs and be more customer oriented while maintaining safe and sound operations. Perhaps the two 1997 initiatives of broadest interest were final regulations concerning eligibility and scope of financing and proposed regulations on general financing agreements (GFA's) between FCS banks and the lending institutions that borrow from them.

The most controversial changes have involved final rules for eligibility and scope of financing. The changes affect loans to farmers, financing of processing or marketing operations, loans to farm-related businesses, nonfarm rural home loans, and eligibility and scope of financing for Banks for Cooperatives and Agricultural Credit Banks. The regulations place fewer restrictions on financing to legal entities, to certain foreign nationals, and for marketing, processing, and farm-related business loans. Also, definitions related to nonfarm rural home lending are tightened and harmonized with Federal Agricultural Mortgage Corporation (Farmer Mac) standards. The American Bankers Association and the Independent Bankers Association of America sued the FCA, alleging the regulations conferred powers on the FCS not intended by Congress. In November, a Federal Court dismissed the suit, but an appeal has been filed.

The final rule on GFA's revises regulations governing funding relations between FCS banks and FCS direct lender associations or non-FCS financing institutions (OFI's). OFI's, including commercial banks, could enjoy greater access to FCS financing for eligible short- and intermediate-term loans to eligible borrowers. The proposed rule reduces to two the minimum conditions under which a creditworthy OFI would be eligible for access to FCS financing. First, the OFI must make at least 15 percent of its loans to agricultural producers. Second, it must commit to establishing a funding relationship with an FCS bank for at least 2 years. The rule may also encourage more equitable treatment of FCS associations and OFI's by FCS banks. In part, this is accomplished by allowing OFI's to seek funding under certain conditions from FCS banks not chartered to serve their service area. To protect FCS safety and soundness, OFI's funding must be fully secured and full recourse to OFI capital is required.

The overall impact of these FCS changes on rural borrowers is likely to be small. Those who have been eligible to borrow from FCS lenders may notice a slight decrease in FCS rates relative to competing bank rates, although bankers are also enjoying a similar regulatory reform. Some borrowers who were formerly considered ineligible to borrow from the FCS will now be allowed to do so. Commercial banks, some of which have had trouble maintaining their deposit base, should find it easier to qualify to borrow nondeposit funds from FCS banks. However, it remains to be seen whether many commercial banks, particularly small rural ones, will overcome their traditional aversion to dealing with the FCS. *[Daniel Milkove, 202-694-5357, dmilkove@econ.ag.gov and Robert Collender, 202-694-5343, rnc@econ.ag.gov]*

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Appendix table 1—Rural share of selected programs, fiscal year 1996

Agency[1] and program	1996 funding[2]	Nonmetro counties	Rural States
	Billions of dollars	———Percent———	
General assistance:			
HUD State/Small Cities Community Development Block Grants (CDBG)	1.135	—	24.5
EDA adjustment assistance—			
Planning support	.021	61.4	34.1
Technical assistance	.011	25.7	22.2
Special economic development and adjustment assistance[3]	.185	25.2	13.7
FEMA disaster relief	2.516	—	9.5
USDA/CSREES extension activities[4]	.407	29.6	27.0
BIA Native American assistance programs	.418	—	39.8
Infrastructure assistance:			
USDA/RUS Programs—			
Rural Water and Waste Disposal Grants	.348	78.2	26.8
Rural Water and Waste Disposal Direct Loans	.581	73.3	25.1
Rural Water and Waste Guaranteed Loans	.059	97.1	.5
Rural Electrification Loans and Loan Guarantees[4]	.699	70.8	27.4
Rural Telecommunication Loans and Loan Guarantees[4]	.457	59.9	19.0
Distance Learning and Medical Link Grants	.008	84.8	34.9
USDA/RHS programs—			
Rural Community Facilities Direct Loans	1.250	77.7	23.9
Rural Community Facilities Loan Guarantees	.053	80.5	28.5
DOT Highway Planning and Construction Grants	18.162	26.3	16.4
DOT Airport Improvement Grants[1]	1.179	13.0	20.2
DOT Nonurban Public Transportation	.139	—	20.1
EPA Clean Water State Revolving Fund	.222	—	10.8
EDA Public Works Grants	.161	55.4	25.3

See notes at end of table.

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Appendix table 1—Rural share of selected programs, fiscal year 1996—Continued

Agency[1] and program	1996 funding[2]	Nonmetro counties	Rural States
	Billions of dollars	————Percent————	
Business assistance:			
SBA Small Business Loan Guarantees—7(a)	7.092	18.5	12.0
SBA Certified Development Loan Company guarantees (section 504)	2.782	15.7	12.4
SBA disaster loans—			
Economic Injury Disaster Loans	.119	46.1	14.4
Physical Disaster Loans	1.224	15.2	5.9
USDA/RBS Programs—			
Business and Industry Loan Guarantees	.609	58.2	29.2
Intermediary Relending Program Loan Guarantees	.037	72.2	30.3
Rural Business Enterprise Grants (RBEG)	.044	70.3	31.7
EDA Special Economic Development and Adjustment Assistance[5]	.185	25.2	13.7
Housing assistance:			
USDA/RHS Single Family Housing (section 502)— Direct Loans and Guarantees	2.663	42.3	22.3
USDA/RHS Multifamily Housing (section 515)	.147	69.7	26.8
VA Guaranteed and Insured Housing Loans	10.504	11.0	11.7
HUD/FHA Single-Family Mortgage Insurance	59.133	5.8	7.9
HUD mortgage insurance for low/moderate income families	.102	19.0	12.0
HUD Public and Indian Housing	3.349	16.1	10.3
Share of U.S. population, 1996[6]	NA	20.3	11.4

— = Data not accurate at the county level.

NA=Not applicable.

[1] Agency abbreviations in table are HUD = U.S. Department of Housing and Urban Development; EDA = Economic Development Administration (U.S. Department of Commerce); FEMA = Federal Emergency Management Agency; USDA = U.S. Department of Agriculture; CSREES = Cooperative State Research, Education, and Extension Service; RBS = Rural Business-Cooperative Service; RUS = Rural Utilities Service; RHS = Rural Housing Service; BIA = Bureau of Indian Affairs (U.S. Department of the Interior); DOT = U.S. Department of Transportation; EPA = Environmental Protection Agency; SBA = Small Business Administration; FHA = Federal Housing Administration; VA = U.S. Department of Veterans Affairs.

[2] Dollar amounts are for the U.S. total (includes both metro and nonmetro) for fiscal year 1996. Because the data source is the Bureau of the Census, these totals may differ from those cited from other sources.

[3] Includes economic and defense adjustment.

[4] Federal Funds data covering CSREES extension activities (includes research) and RUS electric and telephone loans only track funds to the county where central offices are located. The services provided by these programs often cover multicounty areas; hence, these data probably understate the extent to which nonmetro counties benefit from the programs.

[5] The percentages reported here refer to the entire Special Economic Development and Adjustment Assistance program, which includes both economic adjustment and defense adjustment (this program was also reported earlier under general business assistance).

[6] Data for calendar year 1996.

Source: Calculated by ERS using Federal Funds data from the Bureau of the Census.

Data Sources

Federal Funds Data. The principal data source we use to indicate geographic dispersion of program funding is the Consolidated Federal Funds Reports data from the U.S. Department of Commerce, Bureau of the Census. We usually refer to these data as the Federal Funds data. Census collects these data annually from each Federal department or agency. We aggregated the latest available data (fiscal year 1996) to the county, State, region, and national levels for each program. (Unless otherwise specified, references to years are fiscal years.) We have also computed per capita estimates by type of nonmetro county and type of State (the typologies are explained later in this appendix). These per capita estimates form the basis for our information indicating the types of rural places that are particularly affected by each program.

The Census data for 1996 covered 1,146 individual programs, but not all of these programs had reliable data at the county level. Each program has individual characteristics that affect the way the data show geographic patterns. For example, funds for many programs go directly to State capitals or regional centers that redistribute the money or program benefits to surrounding areas. Examples include block grant programs and some procurement programs that involve a substantial degree of subcontracting. Census screens the data to identify such programs, and we have added our own screening, which separates out those programs that allocate 25 percent or more of their funds to State capitals. We ended up with 694 programs that we believe are fairly accurate to the county level for 1996. For the screened-out programs, we believe it is only meaningful to indicate geographic variations among States but not among counties. Thus, for some of the programs, we provide county maps and statistics, while for others we rely on State maps and statistics. Appendix table 1 lists the programs covered in this report, including the percentage of funds going to nonmetro counties (for programs deemed accurate to the county level) and the percentage of funds going to rural States (for all programs, including programs not deemed accurate to the county level).

The benefits of Federal programs do not all go to the places that receive funds. For example, money spent on national parks benefits all who visit the parks and not just those who live where the parks are located. USDA money to county extension offices may be expected to provide services to surrounding multicounty areas. Similarly, rural electric loans go to borrowers who may be located in one county but provide electric service to a much wider, multicounty area. Such spillover benefits are present in almost all Federal programs and are not reflected in the Federal funds data. In addition, different programs affect communities in different ways and have different multiplier effects on local income, employment, and community well-being. Thus, even if the reported funding dispersion is considered to be an accurate depiction of where the funds are spent, care is required when interpreting the data as program effects.

Federal Funds data may represent either actual program expenditures or obligations, depending on the form of the data provided to Census. Direct loans and loan guarantees are reported according to the volume of loans obligated, and do not take into account interest receipts or principal payments. Consequently, these data do not always correspond to program totals reported in government budget documents, such as budget authority, outlays, or obligations (see definitions).

ERS' Federal Funds Data—sorted by type of county and State and used to produce tables, charts, and maps for this publication—will be available on CD-Rom, at a cost to be announced later, as one of ERS's Standard Data Products. *[Faqir Singh Bagi, 202-694-5337, fsbagi@econ.ag.gov; Samuel Calhoun, 202-694-5339, scalhoun@econ.ag.gov; and Rick Reeder, 202-694-5360, rreeder@econ.ag.gov]*

Budget Data. We obtained information on regulatory changes and recent changes in program funding levels, such as the level and change in funding from 1997 to 1998, from various sources, including Congressional Quarterly Weekly Report, the President's Fiscal Year 1999 Budget, the 1999 budget summaries provided by major government agencies, Congressional legislation, conference reports, and legislative summaries, and from the most recent Catalogue of Federal Domestic Assistance. In some cases, we contacted budget officials by phone to obtain information.

Population Data. Per capita funding amounts were estimated using 1996 county population estimates from the Bureau of the Census.

Definitions

Typologies. Classification systems developed and periodically revised by ERS to group counties and States by economic and policy-relevant characteristics. The county typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR-89, U.S. Department of Agriculture, Economic Research Service, December 1994. The State typology codes were first developed in Elliot J. Dubin, *Geographic Distribution of Federal Funds in 1985*, Staff Report AGES89-7, U.S. Department of Agriculture, Economic Research Service, March 1989, and were revised for the 1996 Federal Funds *RCaT*.

County Economic Types (mutually exclusive; a county may fall into only one economic type):

Farming-dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Mining-dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Manufacturing-dependent—Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Government-dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Service-dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance and insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietor income over the 3 years of 1987-89.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years of 1987-89.

County Policy Types (overlapping; a county may fall into any number of these types):

Retirement-destination—The population aged 60 years and older in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land in 1987.

Commuting—Workers aged 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, and 1990.

Transfer-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over 3 years of 1987-89.

State Types (the first three types are mutually exclusive; a State may fall into only one category; the remainder are overlapping).

Because many Federal programs do not have accurate county-level data, we developed a State typology to assist in differentiating among types of States and their funding levels. First, we categorized States into three groups (rural, urban, and other) based on the percentage of a State's population residing in urban parts of metro areas. We defined four other types of States: farming-dependent, persistent-poverty, retirement-destination, and

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Federal lands. In each case, we used the same kinds of measures that were used to construct ERS's county typologies. However, the cutoffs were lowered because States have more internal socioeconomic diversity than most counties.

ERS's State types are defined as follows:

Rural—In 1993, 45 percent or less of the State's population resided in urban areas within the metro areas.

Urban—In 1993, 70 percent or more of the State's population resided in urban portions of metro areas.

Other (neither urban nor rural)—More than 45 percent but less than 70 percent of the State's population in 1993 resided in urban portions of metro areas.

Farming-dependent—In 1991-93, 4 percent or more of the total labor and proprietor income came from farm labor and proprietor income.

Persistent-poverty—Fifteen percent or more of a State's persons had income below poverty in 1960, 1970, 1980, and 1990.

Retirement-destination—A State's aged (over 60) population in 1990 increased by 5 percent or more due to net inmigration from 1980 to 1990.

Federal lands—The Federal Government owns 28 percent or more of total land in the State.

These State types were illustrated in figures 1-5 of the 1996 Federal Programs *RCaT*.

Rural States include Alaska, Arkansas, Idaho, Iowa, Kentucky, Maine, Mississippi, Montana, Nebraska, New Hampshire, North Carolina, North Dakota, South Dakota, Vermont, West Virginia, and Wyoming.

Urban States include Arizona, California, Colorado, Connecticut, Delaware, District of Columbia, Florida, Hawaii, Illinois, Maryland, Massachusetts, Nevada, New Jersey, New York, Rhode Island, Texas, and Utah.

Other States include Alabama, Georgia, Indiana, Kansas, Louisiana, Michigan, Minnesota, Missouri, New Mexico, Ohio, Oklahoma, Oregon, Pennsylvania, South Carolina, Tennessee, Virginia, Washington, and Wisconsin.

Farm-dependent States include Arkansas, Idaho, Iowa, Kansas, Montana, Nebraska, North Dakota, South Dakota, and Wyoming.

Poverty States include Alabama, Alaska, Arkansas, District of Columbia, Georgia, Kentucky, Louisiana, Mississippi, New Mexico, South Carolina, South Dakota, Tennessee, and West Virginia.

Retirement-destination States include Arizona, Florida, Hawaii, Idaho, Nevada, New Mexico, North Carolina, Oregon, South Carolina, Utah, and Washington.

Federal lands States include Alaska, Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Regions

Census Regions—We used the conventional four Census-defined regions as follows:

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

In most cases, we used only the nonmetro portion of these regions when referring to county-level data variations.

Metro and Nonmetro Areas

Metro areas. Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and a total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data through 1993 categorizes counties as metro and nonmetro based on population and commuting data from the 1980 Census. Throughout *Rural Conditions and Trends,* "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Nonmetro areas. These are counties outside metro area boundaries. In *Rural Conditions and Trends*, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Rural-Urban Continuum County Codes

Classification system developed by ERS to group counties by the size of their urban population and the adjacency to metropolitan areas. (See Margaret A. Butler and Calvin L. Beale, *Rural-Urban Continuum Codes for Metro and Nonmetro Counties,* 1993, AGES 8428, U.S. Department of Agriculture, Economic Research Service, September 1994).

Metro counties—

Central counties of metro areas of 1 million population or more.

Fringe counties of metro areas of 1 million population or more.

Counties in metro areas of 250,000 to 1 million population.

Counties in metro areas of fewer than 250,000 population.

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area.

Urban population of 20,000 or more, not adjacent to a metro area.

Urban population of 2,500 to 19,999, adjacent to a metro area.

Urban population of 2,500 to 19,999, not adjacent to a metro area.

Completely rural or less than 2,500 urban population, adjacent to a metro area.

Completely rural or less than 2,500 urban population, not adjacent to a metro area.

Nonmetro adjacent counties—

Nonmetro counties physically adjacent to one or more metro areas and having at least 2 percent of the employment labor force in the county commuting to the central metro county.

Budgetary Terms

Budget authority**.** The authority becoming available during the year to enter into obligations that will result in immediate or future outlays of government funds. In some cases, budget authority can be carried over to following years. It can take the form of appropriations, which permit obligations to be incurred and payments to be made, or authority to borrow, or authority to contract in advance of separate appropriations. Supplemental appropriations provide budget authority when the need for funds is too urgent to be postponed until the next regular annual appropriations act.

Obligations incurred. Once budget authority is enacted, government agencies may incur obligations to make payments. These include current liabilities for salaries, wages, and interests; contracts for purchase of supplies and equipment, construction, and the acquisition of office space, buildings, and land. For Federal credit programs, obligations are recorded in an amount equal to the estimated subsidy cost of direct loans and loan guarantees.

Outlays. This is the measure of government spending. Outlays are payments to liquidate obligations (other than repayment of debt), net of refunds and offsetting collections.

Direct loan. This is the disbursement of funds by the Government to a non-Federal borrower under a contract that requires repayment, with or without interest.

Loan guarantee. This is any guarantee, insurance, or other pledge with respect to the payment of all or a part of the principal or interest on any debt obligation of a non-Federal borrower to a non-Federal lender.

Fiscal year. A fiscal year is the U.S. Government's accounting period. It begins October 1 and ends September 30 and is designated by the calendar year in which it ends.

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Rural Conditions and Trends

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Socioeconomic Conditions

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Recent Indicators Send Mixed Signals About Rural Economic Performance

Recent declines in rates of employment and population growth point to a possible slowdown in the favorable economic conditions prevailing in rural areas during much of the current decade. However, falling unemployment levels, growing per capita incomes, and rising weekly earnings for rural workers indicate the continuation of a positive economic climate. Continuing long-term trends, rural areas lag urban areas in levels of earnings and income, and exhibit more poverty; in some cases, the gap may be widening. Within rural areas, a disproportionate share of minorities remain economically disadvantaged, although some signs of improving socioeconomic conditions are beginning to appear. According to most indicators, economic disadvantage is especially pronounced in rural areas with large concentrations of minority population.

This issue of *Rural Conditions and Trends* (*RCaT*) provides both a capsule view of current socioeconomic conditions and trends in rural areas across the country and a special look at the socioeconomic status of rural minorities. Many articles update analysis reported in the 1997 socioeconomic conditions issue (*RCaT*, Vol. 8, No. 2) by addressing topics such as population and migration, employment, unemployment, household income, farm household income, hired farm labor, elderly, and housing. Also returning to this issue are articles reporting current trends for per capita earnings, personal income, transfer payments, and wage levels by residence. Articles new to the issue focus on children's well-being and household food security and hunger.

Two articles in this issue rely on special analytical tools developed either within ERS or jointly by ERS and other Federal agencies. The article on farm household income uses a new farm typology to classify U.S. farms into eight different farm types based on farm sales and whether or not the farm is a "family farm." Data for the typology come from the Agricultural Resources and Management Study (ARMS) conducted by ERS and the National Agricultural Statistics Service (NASS). The article on household food security in rural and urban areas presents a new indicator developed jointly by USDA's Food and Nutrition Service and the Department of Health and Human Services (HHS) to assess and monitor food insecurity and hunger in the United States. Also, for the first time in RCaT, data from ERS's Rural Manufacturing Survey are used to examine economic conditions in certain rural areas. All these measures provide important new research tools for future analysis by ERS and its customers in the broader research arena.

In addition to examining the nature and direction of current rural trends during the 1990's, this issue examines the socioeconomic conditions and well-being among rural minorities and rural counties where minorities represent a substantial share of the population. The share of the national population whose racial/ethnic origin is other than White is growing. According to some recent demographic projections, today's minorities will comprise a majority of the U.S. population in future decades if current trends continue.

National attention on the topic of race and ethnicity once again entered the policy limelight with the establishment of a Presidential Initiative on Race in 1997. As a result, the Council of Economic Advisers and the National Research Council were asked to spearhead a research effort to assess the current situation within a historical context and identify the most pressing problems. The Council of Economic Advisers has just released a chartbook, *Changing America*, which documents national differences in socioeconomic well-being by race and ethnicity (Council of Economic Advisers, *Changing America: Indicators of Social and Economic Well-Being by Race and Hispanic Origin*, For the President's Initiative on Race, Sept. 1998). However, researchers and policymakers alike have often overlooked the economic and social conditions of rural minorities, who accounted for approximately 20 percent of the rural population in 1990. With historically higher rates of poverty and unemployment and lower levels of education, these minorities, nonetheless, represent a disproportionate share of the disadvantaged segment of rural population.

The first two articles in the issue provide a backdrop for addressing the topic of rural minorities. One article focuses on the demographic characteristics of minorities and how they relate to socioeconomic status. The other article presents a new ERS typology of rural minority counties that delineates counties with high concentrations of minority population and describes their spatial patterns. Other articles directly address the minority topic, including an analysis of the job situation in rural counties where Blacks are at least one-third of the population and an examination of socioeconomic conditions among elderly minorities. In addition to reporting general conditions and trends, all of the articles analyze either a specific facet of socioeconomic well-being for different rural minorities or the conditions prevailing in the 333 rural counties where minorities constitute at least one-third of the population.

Economic Indicators Paint a Mixed Picture for Rural Areas

Compared with conditions in the 1980's, rural socioeconomic conditions during the mid-1990's are favorable (table 1). Recent economic indicators, however, are sending a decidedly mixed message about economic changes in rural areas. On one hand, the employment growth in nonmetro areas dropped modestly below the metro rate beginning in 1995, a pattern that has persisted over the last 13 quarters. Furthermore, this slight decrease in nonmetro employment growth extends across all regions and county types, suggesting the possibility of a shift in economic activity toward metro areas. During the same period, the pace of population growth slowed slightly, falling by one-third between 1994 and 1995. Although rural earnings per job grew very slightly during 1995-96, a significant rural-urban earnings gap persisted and even widened. Similarly, since 1989, rural poverty rates have remained unchanged and continue to be higher than metro poverty rates.

On the other hand, rural unemployment rates have continued to fall, per capita incomes grew faster in rural than urban areas, and average weekly earnings for rural workers showed a gain during 1996-97, the largest increase since the end of the last recession. Another sign of favorable economic times appears in a steady drop in growth in nonmetro and metro per capita transfer payments to individuals during the 1990's, which is the usual response to a strong economy. Per capita transfers for the major public assistance programs—food stamps, Supplemental Security Income (SSI), and Aid to Families with Dependent Children (AFDC)—either declined rapidly or grew slowly during 1994-96, but transfer payments for "other income maintenance programs," including programs such as general assistance, emergency assistance, and Earned Income Tax Credit (EITC), grew rapidly. The changes in public assistance programs, however, may be a response to policy and program changes as much as to the economic situation.

. . . As Well As for Rural Minorities

Nearly all of the main economic indicators used to examine differences in socioeconomic status and well-being reveal wide gaps in the levels of poverty, unemployment, earnings, and income sources between rural minorities and Whites (see box for definition of minority status). For example, the rural minority poverty rates were nearly three times as high as those of rural Whites and substantially higher than those of urban minorities. The levels of poverty differed among rural minorities as well, with Blacks having the highest rate, followed by rural Native Americans and rural Hispanics. Some of the highest poverty rates (more than 40 percent) were found among rural minority children. Black unemployment rates have typically been more than double White unemployment rates. The median income of rural Black households was 56 percent of the median for rural White households in 1996, while median incomes of rural Hispanic and Native American households were about 65 percent that of rural White households. Minorities also have higher levels of food insecurity and hunger.

On a more positive note, growth in average weekly earnings for rural Blacks registered an increase of 5.6 percent since 1990 and 2.4 percent between 1996 and 1997. Although the gap between Black and White earnings remains large, the earnings gap between urban and rural minorities has narrowed significantly—especially for Hispanics—as minorities have been able to make educational and occupational gains. The entry into the labor force of increasing numbers of minority youth may further help to reduce earnings gaps.

. . . And Areas with Significant Minority Concentrations

ERS delineated counties with significant representations of minority population to help depict the diversity of rural economic well-being and current economic conditions. In over 300 rural counties, minorities made up one-third or more of the population in 1990 (fig. 1; see definitions box, p. 8). An interesting feature of these counties is a geographic concentration or clustering by racial and ethnic groups, which serves to heighten the minority presence in the specific subregions where they are located. Although these counties rep-

Table 1

Indicators of nonmetro economic performance

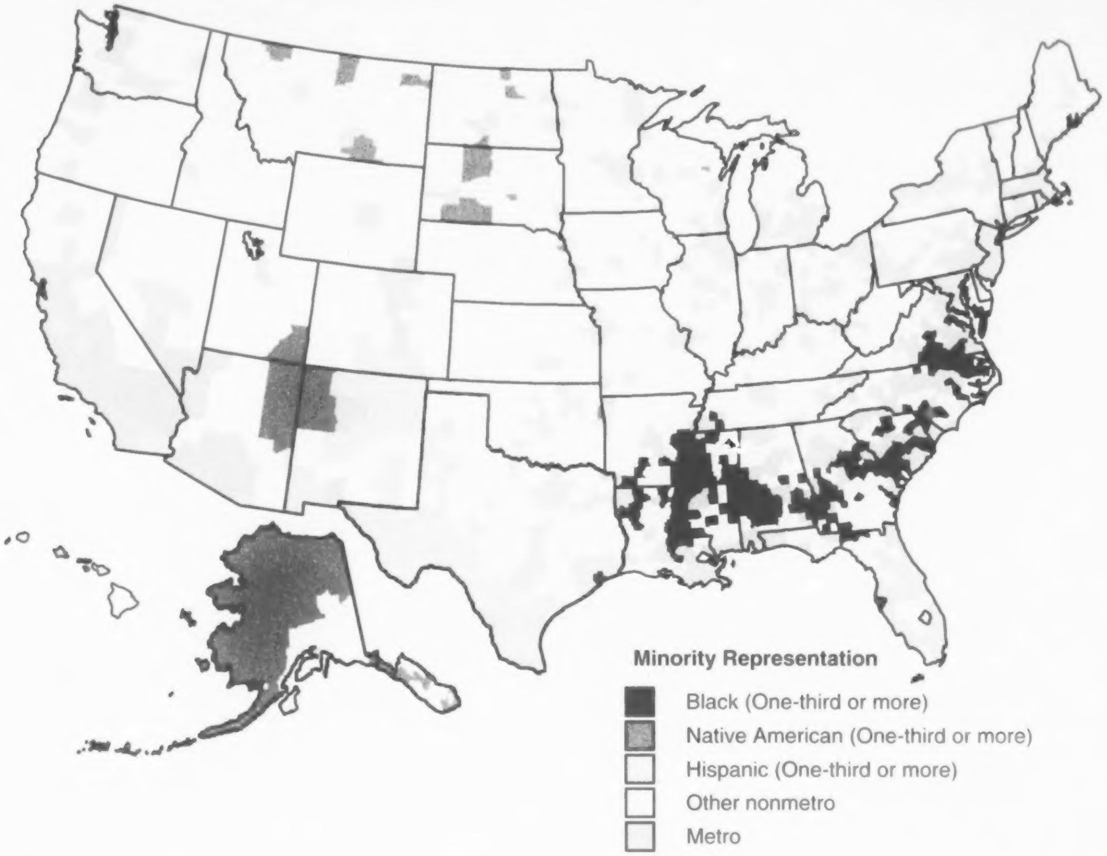
Socioeconomic conditions in the mid-1990's show signs of continuing improvements, although rural-urban gaps persist

Indicator	Performance	Indicator	Performance
	Percent		Percent
Annual population change:		Annual employment change:	
1990-97	0.94	1990-97	1.4
1980-90	.30	1980-90	.9
Annual net migration rate:		Annual unemployment rate:	
1990-97	.57	1997	5.2
1980-90	-.28	1995	5.7
		1993	6.6
Poverty rate:		Annual change in real per capita income:	
1996	15.9	1995-96	2.4
1994	16.4	1991-96	1.7
1989	15.7	1989-91	-.2
	1996 dollars	Annual change in real transfer payments:[1]	
Per capita income:		1994-96	2.45
1996	18,527	1991-94	3.43
1991	17,009	1989-91	5.56
1989	17,091		
		Annual change in earnings per nonfarm job:	
Per capita transfer payments:[1]		1995-96	.1
		1991-96	.3
1996	3,893	1989-91	-1.3
1991	3,355		
1989	3,011		1996 dollars
		Rural-urban gap in per capita income:	
Per capita earnings:		1996	7,417
1996	11,224	1991	6,850
1991	10,366	1989	7,060
1989	10,612		
		Rural-urban gap in earnings per nonfarm job:	
Earnings per nonfarm job:		1996	9,225
1996	22,492	1991	8,381
1991	22,204	1989	8,073
1989	22,782		
			1997 dollars
	1997 dollars	Rural-urban gap in average weekly earnings:	
Average weekly wage and salary earnings:		1997	114
		1990	125
1997	436		
1990	422		

[1] Transfer payments to individuals that account for 96 percent of all transfers.

Source: Other articles and appendix tables in this issue of *Rural Conditions and Trends*, Economic Research Service.

Figure 1
Nonmetro minority counties, 1990
Blacks, Native Americans, or Hispanics make up one-third or more of the population in 333 nonmetro counties


Minority Representation
Black (One-third or more)
Native American (One-third or more)
Hispanic (One-third or more)
Other nonmetro
Metro

Source: Calculated by ERS using data from the 1990 Census of Population, Bureau of the Census.

resented only 12 percent of total nonmetro population, they accounted for 45 percent of the rural minority population.

As part of the overall rural rebound during the 1990's, minority counties shared in higher rates of population growth during the 1990's, with inmovement of population occurring in most counties. However, the factors underlying the population growth varied among the Black, Native American, and Hispanic counties.

In comparison with other nonmetro counties, all groups of nonmetro minority counties exhibited a disproportionate degree of economic disadvantage, evidenced by high levels of poverty and unemployment and low levels of income and earnings. Furthermore, economic disadvantage tends to be more pronounced in counties where a minority group constitutes a majority of the population. For example, predominantly Black counties in which the manufacturing industry has been an important source of jobs in the past are now finding it difficult to compete in the face of new technology and the demand for more highly skilled workers.

This issue of *Rural Conditions and Trends* provides a broad information base to better understand the effects of economic trends and policies on rural people, their communities, and their local economies. In addition, the issue reports much-needed information

Definitions

Based on county census data, the typology of minority concentration areas classifies counties according to three levels of minority representation in the population, less than one-third (low), one-third to one-half (substantial), and more than one-half (predominant) for each of three minority groups—Black, Native American, and Hispanic. The combined substantial and predominant groups are referred to simply as Black, Native American, and Hispanic counties, and "other nonmetro counties" refer to counties with low minority populations. For the sake of simplicity, articles using micro data sources like the Current Population Survey use the terms, "Whites," "Blacks," and "Hispanics" to refer respectively to non-Hispanic Whites, non-Hispanic Blacks, and Hispanics, regardless of race.

on racial and ethnic disparities in rural areas, which provides the basis for an informed discussion about the problems faced by people of different races and ethnic backgrounds in rural America. There is good news here with promising signs of improvements for rural minorities since the 1980's. But far too many rural areas continue to be characterized by disparities among minority groups. A key challenge for policymakers will be to use the information presented here to find ways that will enhance the economic opportunity and quality of life for all rural Americans. The most successful rural policies and programs will be those that recognize the persistent problems as well as limitless possibilities associated with the racial/ethnic diversity of rural areas. *[Peggy J. Cook, 202-694-5419, pcook@econ.ag.gov]*

Minorities Represent Growing Share of Tomorrow's Work Force

Minorities constitute an increasing proportion of the population, particularly among children and younger working-age adults. Although the proportion of minorities is lower in the rural population than in the urban population, specific minority groups are so concentrated in some rural regions that programs and policies affecting the current economic status of minorities are highly relevant there.

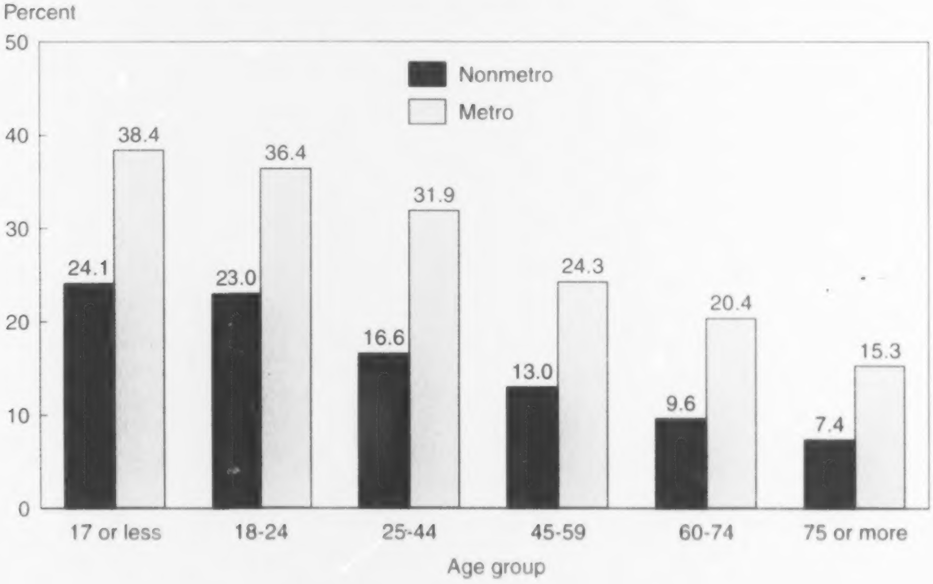
The question of race and ethnicity—and how it matters—is once again in the national limelight. Population projections for specific areas, particularly those with high levels of immigration, predict that in the next several decades the non-Hispanic White population will be in the minority (see p. 8 for definition of minority groups). Although the growth rate due to immigration has been fairly constant over the last decade, it does continue and predominantly involves younger age groups. The currently low birth rate among non-Hispanic Whites is offset by higher birth rates for minority groups, particularly among relatively recent immigrants. This assures a more even balance in the near future between working-age and retired adults than would be the case without minority young adults (fig. 1).

With some exceptions, minority groups have higher levels of poverty and unemployment and lower levels of education than nonminorities. Earlier work by ERS researchers, reported in 1996 in *Racial/Ethnic Minorities in Rural Areas: Progress and Stagnation, 1980-90* (AER-731), shows that while different minority groups have similar levels of poverty, the underlying causes are different, and these differences vary among men and women and younger and older members of the same group. In brief, Native American men were found to have extremely high rates of joblessness and little full-time work. Hispanic men are hampered by poor English ability and a concentration in agriculture—much more so than Hispanic women. Black men appear to face pay discrimination not found for other groups or for Black women. Assessing the economic status of specific minority groups, how it has changed over time, and whether and how it differs within that

Figure 1

Share of population that is minority,* by age group and metro/nonmetro residence, 1997

The future race/ethnic composition of the Nation can be seen in the younger age groups



*Includes everyone except non-Hispanic Whites.

Source: Calculated by ERS using data from the March 1997 Current Population Survey, Bureau of the Census.

group by age or gender provides information for policymakers to develop programs and enact legislation to address the situation, not only for the benefit of the targeted groups, but also for the Nation and its future well-being.

Many of the articles in this issue examine indicators of well-being to determine the current status of specific rural minority groups, as well as the status of the total population in areas where rural minorities are concentrated. This article focuses on the demographic characteristics of minorities and how these characteristics both affect and are affected by socioeconomic status.

Rural Minority Population Small but Highly Concentrated in Easily Identified Areas

Rural minorities are truly in the minority when taken as a percentage of the total rural population. Although minorities have been slowly increasing as a percentage of the rural population (up 3 percentage points between 1990 and 1997), they constituted 17 percent of all rural residents in 1997. However, specific minority groups are so concentrated in some rural regions that programs and policies affecting the economic status of minorities are highly relevant.

Most minorities, with the exception of Native Americans, live in urban areas. Based on the 1997 Current Population Survey, 42 percent of Native Americans, 15 percent of Blacks, 9 percent of Hispanics, and 5 percent of Asian and Pacific Islanders lived in rural areas. By comparison, 23 percent of Whites lived in rural areas.

As discussed in the next article, rural minorities are uniquely clustered geographically, largely because of reasons that stretch back many decades. While there is some regional clustering of urban minorities, the geographic concentration of rural minority groups is longstanding and shows remarkably little propensity to change. Nearly three-fourths of rural Blacks live in the South Atlantic and East South Central regions, nearly three-fourths of rural Hispanics live in the West South Central and Mountain regions (there has been movement to more northern counties within the Mountain region for Hispanics in the last decade), and more than two-thirds of rural Native Americans live in the West Central and Mountain regions. Only for Asian and Pacific Islanders is regional concentration (in the Pacific region) higher for urban than rural residents. Because of this pattern of rural geographic concentration, the socioeconomic status of a specific rural minority group is highly relevant in particular regions.

Demographic Characteristics Affect Socioeconomic Well-Being

As other articles in this issue show, rural minorities tend to have lower earnings among workers, higher unemployment, and higher poverty. Demographic characteristics of a minority group both affect and result from their economic and social status. Age structure and education combine as an indication of the level of employment a group might be able to enjoy. Higher numbers of people in a household, or families doubling up in the same household, can have both a cultural and "coping strategy" basis.

Children Are a High Proportion of the Rural Minority Population

The relatively high proportion of the population under 18 in all the rural minority groups indicates that there is a large pool of potential labor force entrants among minorities and that minorities have a sizable proportion of their own population to support. This is partly fueled in the rural Asian and Hispanic populations by the higher birth rates among recent immigrants. Well over a third of the populations of all four rural minority groups were under age 18 in 1997, compared with a fourth of the White population (table 1). The proportion in prime labor force ages between 25 and 44 is similar for all groups, including Whites.

Partly because of the younger age structure among minorities and the greater proportion of minority families with children, the percentage of rural minorities living in larger households in 1997 was greater than among Whites. The most common household size for rural Whites (at 29 percent) was two people. Ten percent lived alone. Three- and four-person households were the most common among rural Blacks; among Native Americans, the common house-

Table 1

Nonmetro racial/ethnic populations, by age, 1997

The relative youth of minority groups will boost the future labor force

Age group	White	Black	Native American	Hispanic	Asian/ Pacific Islander
			Percent		
17 or younger	25.0	36.4	39.3	40.0	43.9
18-24	8.7	12.9	11.6	12.7	9.2
25-44	28.7	26.6	25.9	29.3	27.0
45-59	17.5	13.4	14.1	10.7	11.7
60-74	13.5	7.6	7.2	5.7	6.4
75 and older	6.6	3.2	1.9	1.6	1.8
			Thousands		
Population	43,458	4,877	888	2,789	488

Source: Calculated by ERS using data from the March 1997 Current Population Survey, Bureau of the Census.

hold sizes were those containing three, four, or five people; and among Asians and Hispanics, four- and five-person households were the norm. Only 4 percent of rural Hispanics lived alone.

Large family size is not the only reason for larger household sizes among minorities. For those with limited earnings power, combining resources in a single household is a coping strategy. In rural areas in 1997, about 12 percent of families headed by Blacks were not the primary family of the household (termed "sub-families"). Ten percent of Native American families and 9 percent of both Asian and Hispanic families were living as subfamilies. The comparable percentage for non-Hispanic rural Whites was 3 percent. Minority housing and issues of overcrowding will be covered in greater detail by the housing article in this issue.

The strategy of doubling up families in a household may also be due to the smaller percentage of families headed by a husband-wife couple for some minority groups. Increasing the number of adults in the household by combining families may allow the earner and home-manager roles to be efficiently filled for each family's benefit. In rural areas, 41 percent of Blacks and 48 percent of Native Americans lived in households headed by a husband-wife couple. The most common type of household headship besides a husband-wife couple was that of an unmarried woman (41 percent for Blacks and 28 percent for Native Americans). For the other three groups, Whites, Asians, and Hispanics, about 70 percent of their rural populations lived in husband-wife households.

Low Education and Employment Levels Characterize All Minority Groups Except Asians

Lower levels of education for those age 25 and over were common for all rural minority groups except Asians and Pacific Islanders (table 2). Education levels were particularly low for rural Hispanics, largely because of the low level of education among immigrants. In 1997, 53 percent of rural Hispanics lacked a high school diploma. Education levels for rural Blacks and Native Americans were not as low as for Hispanics, but were much lower than for Whites or Asians. Forty-one percent of Blacks and 32 percent of Native Americans lacked a high school diploma. At the other end of the extreme were Asians and Pacific Islanders, with only 18 percent lacking a high school diploma and 28 percent having a college degree or more. Only 16 percent of rural Whites have a college degree

Table 2

Nonmetro racial/ethnic populations, by education, 1997

Low education is common for all minority groups except Asian/Pacific Islanders

Education level	White	Black	Native American	Hispanic	Asian/ Pacific Islander
			Percent		
Less than high school	20.2	41.1	31.8	52.8	17.8
high school diploma	40.4	37.0	34.3	25.8	28.7
Some college or technical	23.4	15.7	25.9	15.9	25.7
College degree or more	16.0	6.2	8.0	5.5	27.8

Source: Calculated by ERS using data from the March 1997 Current Population Survey, Bureau of the Census.

or more. The diversity within the Asian and Pacific Islander group is shown in their range of education levels, with some of the more recent immigrant groups, such as the Hmong and Vietnamese, likely to have arrived in the United States with very little education.

Among those age 15 and over in 1997, unemployment was comparably high for rural Blacks (12 percent) and Native Americans (13 percent) in the labor force. Despite their low levels of education, Hispanics had a somewhat lower unemployment rate, at 9 percent. Asians were as likely as Hispanics to be unemployed (8 percent). Whites were the least likely to be unemployed, with a rate of 5 percent. (These figures are from March 1997. Annual averages for unemployment rates and total employment are available for Whites, Blacks, and Hispanics from 1973 to 1997, shown in appendix table 1).

All four rural minority groups had more than a fifth of their populations over age 16 who were not in the labor force for reasons other than disability or retirement. For rural Whites, that proportion was just over a tenth.

When those who are not employed (including those unemployed and those not in the labor force) last worked is one assessment of the severity of the lack of employment. Among rural Blacks or Native Americans who were not employed, about one-third of each group had not worked within the last year. Though the unemployment rate for rural Hispanics was lower and the sample size is small, the depth of lack of work appears to be greater. The overwhelming majority of rural Hispanics not employed had not worked within the last year.

Education and Employment Opportunities of Rural Minority Youth Should Be Addressed

The higher rates of unemployment and time out of the labor force show a level of disadvantage that does not bode well for the large segment of the future labor force that will be from minority groups. Children living in precarious economic conditions have additional challenges to doing well in school and remaining in school through high school graduation. The coping mechanisms of living with more people and families in the household are not sufficient to offset the effects of poverty and low education on the children in the household. Policies and programs targeted to improve living conditions and access to education and employment opportunities would make it easier for the youth in these groups to enter the labor force. The economic health of the country will be strongly affected by whether or not minorities are able to make a solid contribution to that economy. *[Linda L. Swanson, 202-694-5439, lswanson@econ.ag.gov]*

Minority Counties Are Geographically Clustered

In 333 rural counties, a minority group makes up one-third or more of the population. ERS delineated these counties to help researchers and policymakers better understand the diversity of rural economic well-being and current economic changes. Poverty rates for minority populations in these counties are higher than for minorities elsewhere.

Almost half of rural America's 7.2 million minority population lived in counties with substantial or predominant minority representation in 1990 (see box, p. 8). Such counties were small in number—333 out of 2,288 rural counties—and contained only 12 percent of the total rural population (table 1). However, they were geographically clustered according to the residents' race or ethnic group, providing them with a disproportionate presence in specific subregions. Rural minorities often live in geographically isolated communities where poverty is high, opportunity is low, and the economic benefits derived from more education and training are limited. Now as in the past, many growing up in these areas who develop the skills to succeed must use them elsewhere, leaving behind an even poorer community.

This article describes a new Economic Research Service classification of rural counties into areas of substantial and predominant minority concentration for three minority groups identified by the 1990 Census of Population: Blacks, Native Americans (American Indians, Eskimos, and Aleuts), and Hispanics (app. table 2). Another major group identified in the census, Asians and Pacific Islanders, is not considered here (except in app. table 2) because of its very small rural presence. The delineation is based on 1990 census population numbers because these are the most recent by race and ethnicity that are reliable at the county level. Like other county types identified by ERS, such as manufacturing-dependent or persistent-poverty counties, minority counties help explain economic and social diversity within rural areas and why conditions are changing (or not changing) in the 1990's (see appendix, p. 118, for definitions).

Minority counties were identified separately for Blacks, Native Americans, and Hispanics. If a specific group made up one-third or more of a county's population, that county was classified as a minority county. Minority counties were further classified as substantial (one-third to one-half minority) or predominant (more than one-half). Some counties with smaller but still sizable minority populations are left out, but the relatively high threshold makes it more likely that indicators of social and economic well-being reflect conditions among the resident minority population in minority counties. However, a change in economic conditions within those counties, such as the current improvement in per capita incomes among Black minority counties, may not apply equally to the race/ethnic groups living there.

Table 1

Population by race and ethnicity in rural minority counties, 1990

Over 40 percent of rural minorities live in high-minority areas

County type	Counties	Total	Black	Native American	Hispanic	Total	Black	Native American	Hispanic
	Number	Thousands				Percent			
Nonmetro	2,288	50,898	4,329	882	1,902	100.0	100.0	100.0	100.0
Minority concentration—									
Low	1,955	44,624	2,301	508	1,062	87.7	53.2	57.6	55.8
High	333	6,274	2,028	374	841	12.3	46.8	42.4	44.2
Substantial	197	3,908	1,214	134	328	7.7	28.0	15.2	17.2
Predominant	136	2,366	813	240	513	4.6	18.8	27.2	27.0

Notes: 1993 metro definition.

Source: Calculated by ERS using data from the Bureau of the Census.

In 1990, 208 Black counties, 37 Native American counties, and 88 Hispanic counties were identified. Cibola County, New Mexico, the only county with substantial representation of two race/ethnic groups (its population was 38 percent Native American and 34 percent Hispanic in 1990), was classified as a Native American county. Taken together, over 45 percent of rural minorities lived in these minority counties along with just 7 percent of the rural nonminority population. Data are not available to estimate reliably the growth of minority populations in rural counties since 1990. However, the number of minority counties and the overall share of population groups they contain most likely have shifted only slightly during the 1990's.

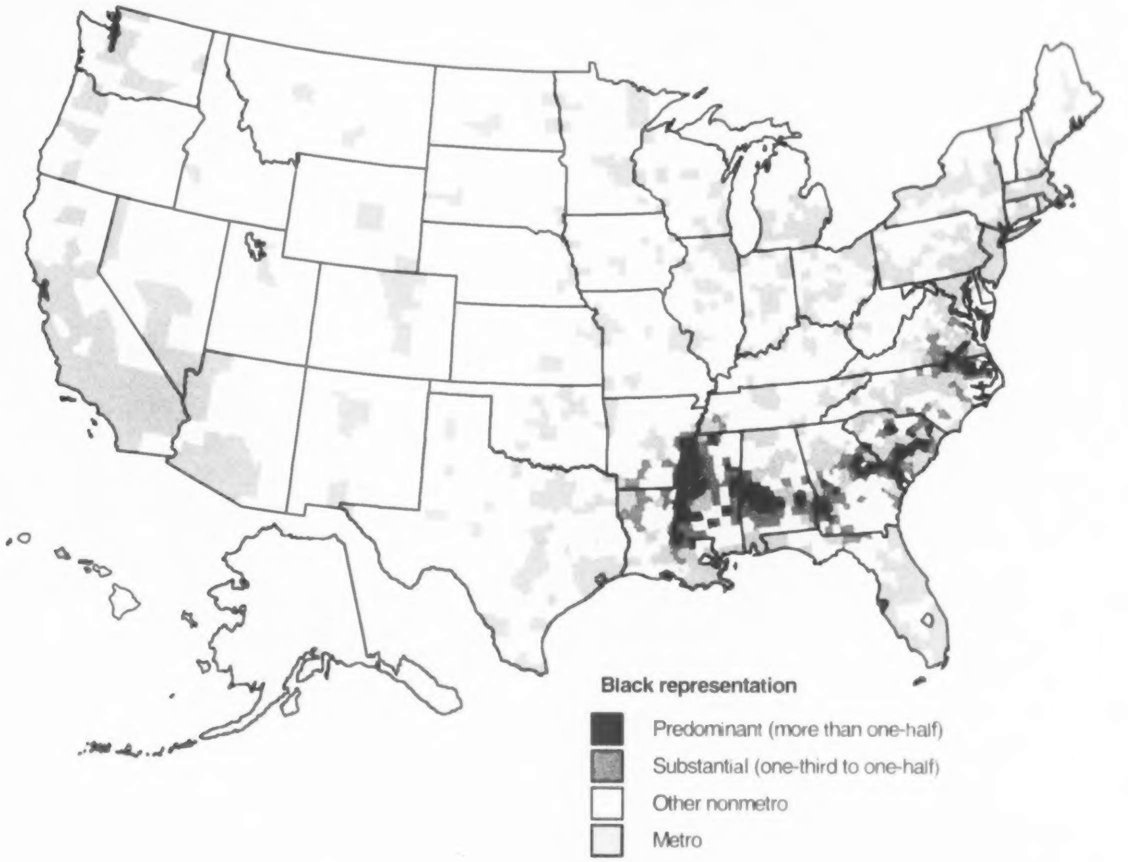
Black Counties Are in the South's Traditional Plantation Areas

Rural counties with one-third or more Black population are found only in the South but are well distributed throughout the region's lowland districts from southern Maryland to Louisiana (fig. 1). The 77 counties in which Blacks are in the majority are clustered in the Mississippi Delta and the Alabama Black Belt and in smaller clusters extending through Georgia, South Carolina, and along the Virginia-North Carolina border. Close to 20 percent of rural Blacks live in predominantly Black counties. A larger number live in substan-

Figure 1

Rural Black counties, 1990

Rural Black counties are found throughout the Southern Coastal Plains and Mississippi Delta


Black representation
■ Predominant (more than one-half)
▨ Substantial (one-third to one-half)
☐ Other nonmetro
░ Metro

Source: Calculated by ERS using data from the 1990 Census of Population, Bureau of the Census.

tially Black counties, mostly located near predominant counties but also extending into south-central Virginia, eastern North Carolina, and western Arkansas and Louisiana.

Black counties coincide with the South's traditional plantation areas, once largely dependent on cotton and, in some places, on tobacco and peanuts. Southern agriculture's dependence on the low cost of Black labor did not end with emancipation in 1863 but was maintained through various noncash, "sharecropping" arrangements and legal segregation in schools, neighborhoods, and jobs up through World War II. Few Blacks were able to make the transition from small-scale tenant to large-scale commercial farming and, as a result, under 20,000 Blacks operate farms today. In many areas, the slow but steady improvements in basic civil rights, educational attainment, and nonfarm employment opportunities have not solved such problems as the low availability of year-round full-time work, lack of transportation, and other characteristics associated with low-income areas. While Blacks have gained in education and income, many have had to migrate out of these counties for further education and economic opportunity. A large gap persists in education levels and earnings between Blacks and Whites who remain in Black counties.

Native American Counties Lack Access to Urban Centers

Over 95 percent of the 1.8 million Native Americans are American Indians, and the rest are Alaskan Natives (Eskimos and Aleuts). Just under half of all Native Americans lived in rural areas in 1990, and 42 percent of those lived in Native American counties. Though few in number, Native American counties are clustered in three areas: the northern High Plains, the Four Corners region in the Southwest, and Alaska (fig. 2). All of the counties in the first two clusters contain reservations, on which American Indians have exerted greater political and economic control since Congress passed the American Indian Self-Determination and Education Act in 1975. Many more reservations exist throughout the country in counties where the American Indian minority population is less than one-third of the total. This is due in part to the susceptibility of many reservations to White settlement in the early years of their existence.

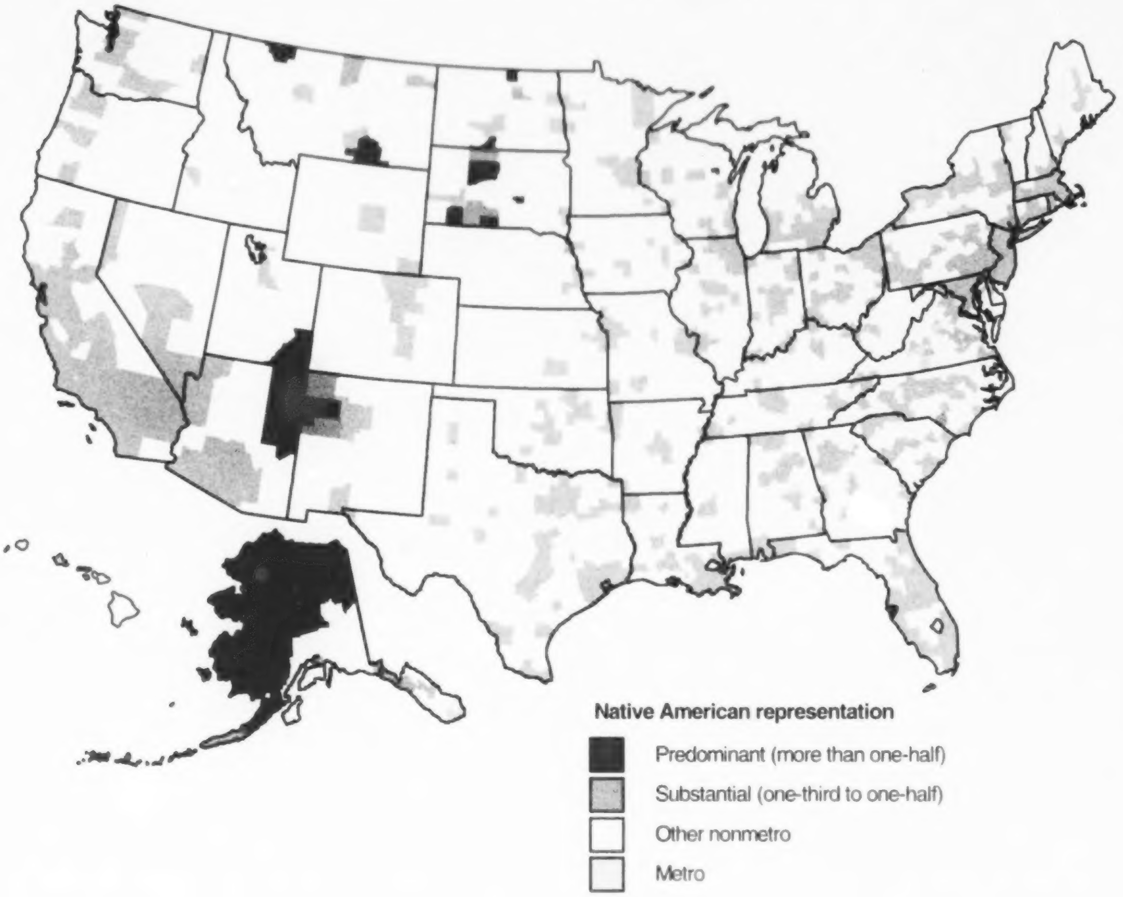
In contrast to Black and Hispanic counties, Native American counties tend to be thinly settled and far from major population centers. Only 14 percent of Native American counties are adjacent to a metro area, compared with 42 percent of all rural counties, and less than one-half contain a city or town of 2,500 or more people, compared with two-thirds nationally. This geographical isolation combines with a long history of discrimination to create economic hardship on many reservations, where opportunities for work have been typically limited to low-wage manufacturing and seasonal or part-time consumer service jobs. In recent years, tribal sovereignty has given Native American groups a level of economic self-determination not available to other minority groups and allowed them to undertake a variety of private enterprise ventures, including tourist-related gaming. For now, however, the potential for such economic development projects to alleviate the high levels of poverty found in many of these Native American counties remains largely untapped.

Hispanic Counties Are Clustered in the Rio Grande Valley

One-half million Hispanics live in rural counties where they make up more than one-half of the population. Most of these predominantly Hispanic counties lie near the Rio Grande, along the entire length from its headwaters in southern Colorado to the Gulf of Mexico (fig. 3). Other areas of Hispanic concentration include California's Central and Imperial Valleys and the southern High Plains of Texas and New Mexico. Substantial Hispanic counties tend to be farther from the core of Hispanic settlement in the Rio Grande Valley and in more sparsely settled territory. Although there are more substantial Hispanic counties compared with predominant counties, far fewer Hispanics live in them.

European settlement of the Rio Grande Valley originated from Mexico, and the area was well populated by the time it became part of the United States. The Valley was and is a cultural crossroads so that many Hispanic counties also include sizable American Indian populations. Hispanic settlement in the High Plains and in California grew following the

Figure 2
Rural Native American counties, 1990
American Indians, Eskimos, and Aleuts are concentrated in a few very isolated settings


Native American representation
Predominant (more than one-half)
Substantial (one-third to one-half)
Other nonmetro
Metro

Source: Calculated by ERS using data from the 1990 Census of Population, Bureau of the Census.

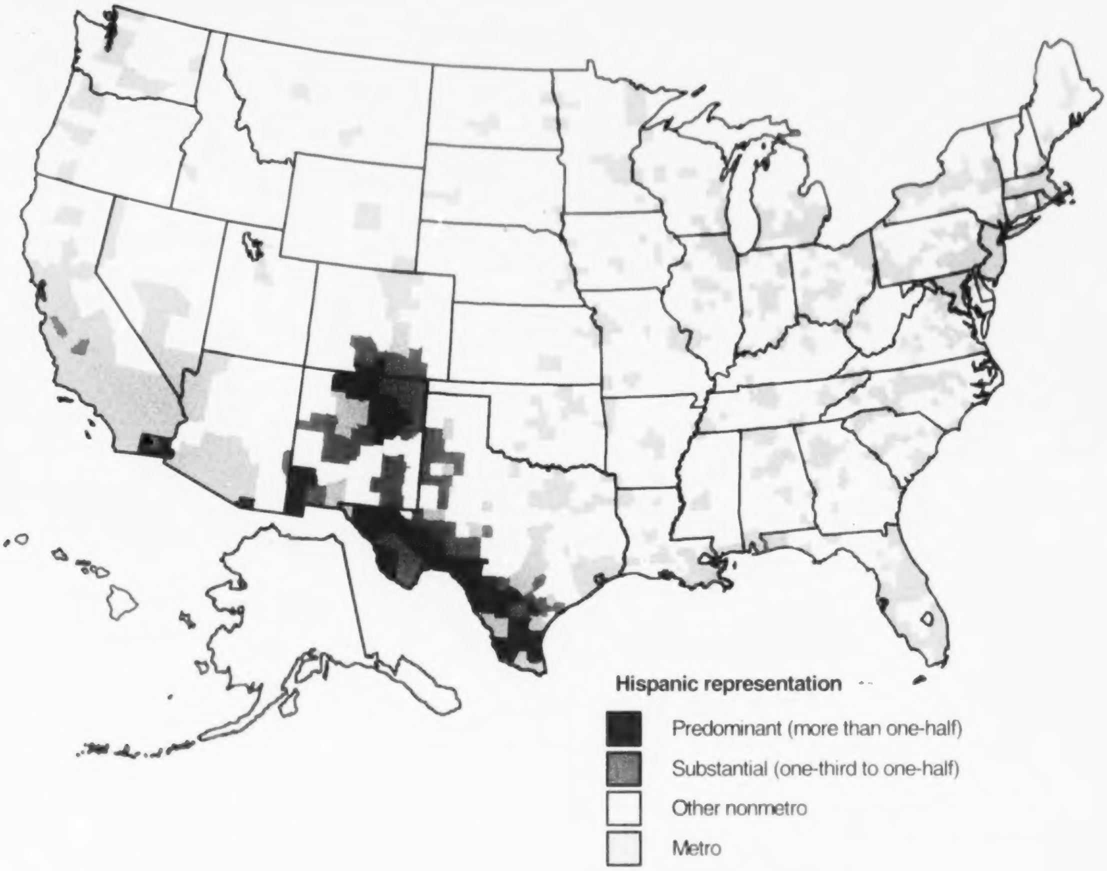
introduction of large-scale irrigated agriculture early in this century. From the outset, these enterprises depended on the low-cost mobilization of Mexican-American and immigrant farm laborers. Unlike rural Blacks, a large percentage of rural Hispanics still work in farming, the vast majority as relatively low-paid, seasonally hired farmworkers and not full-time operators. They still make an essential contribution to western agriculture despite widespread mechanization.

Hispanics are the fastest growing rural minority group, and new growth is occurring both in and far from Hispanic areas in the Southwest. Agricultural areas in Washington, ski resorts in Colorado, and meatpacking centers in Kansas, Nebraska, and Iowa have seen new or greatly expanded Hispanic settlement since 1990.

Minority Counties Have Higher Poverty Gap

Rural poverty is found throughout the country and is less concentrated than in urban areas. Nonetheless, the incidence of poverty is quite severe in minority counties, especially in predominantly Black and Native American counties where it reached nearly 50 percent in 1989 (fig. 4). Whereas minority poverty increases substantially with increasing

Figure 3
Rural Hispanic counties, 1990
Most rural Hispanic counties lie in or near the Rio Grande Valley


Hispanic representation
Predominant (more than one-half)
Substantial (one-third to one-half)
Other nonmetro
Metro

Source: Calculated by ERS using data from the 1990 Census of Population, Bureau of the Census.

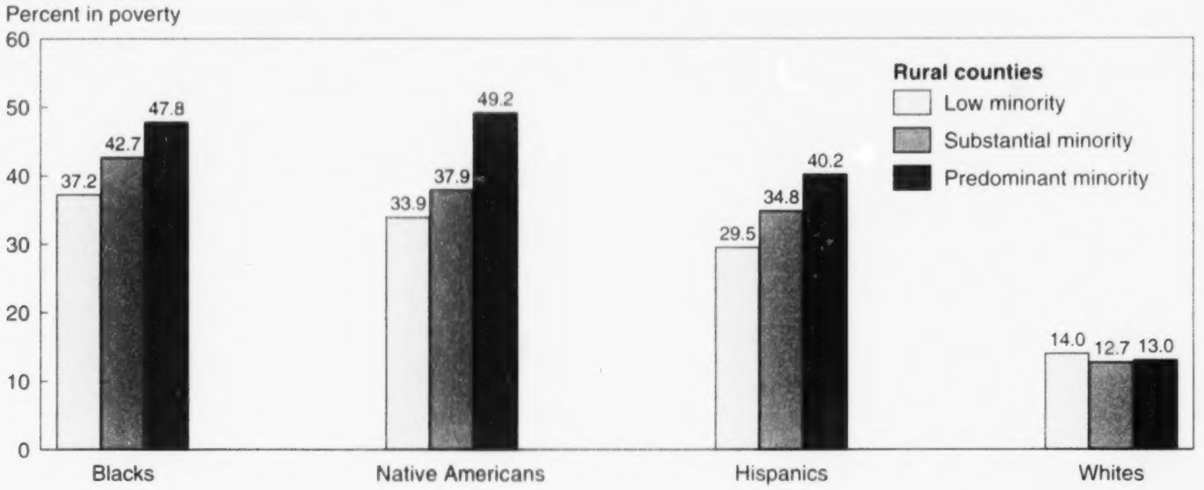
minority presence, the poverty rate of Whites remains essentially the same, suggesting greater income inequality in minority counties. Ninety percent of predominantly minority counties were also persistent-poverty counties, as defined by the ERS typology, compared with 15 percent for other rural counties (app. table 3).

This new ERS typology of Black, Native American, and Hispanic rural counties is meant to help researchers and policymakers investigate some of the complex structural factors that contribute to rural economic well-being. Although each minority group has a unique history and rich cultural diversity, the areas where many of them live share similar problems based on geographical, social, and economic isolation. If we were to look within these minority counties, we would find additional separation by race and ethnicity at the municipal and neighborhood level that, in most cases, signals comparative economic disadvantage for the minority groups involved. Increasingly, rural Blacks live in predominantly Black towns; Hispanic workers and their families in small, marginalized settlements known as "colonias"; and most rural American Indians in or near geographically isolated reservations. These communities typically must deal with poor housing, limited transportation, inferior public services, few industries tied to the outside economy, and few retail and other service establishments. Rural policy that addresses the unique economic concerns of geographically isolated minorities would benefit by focusing on infrastructure needs and the delivery of basic services provided by public and private institutions serving these communities. *[John B. Cromartie, 202-694-5421, jbc@econ.ag.gov]*

Figure 4

Poverty rates by race and ethnicity in rural counties, 1989

Minority poverty increases with concentration



Note: See p. 8 for definition of minority concentration areas and p. 118 for definition of poverty.
Source: Calculated by ERS using data from the Bureau of the Census.

Nonmetro Population Rebound: Still Real but Diminishing

From 1995 to 1997, population growth in nonmetro America fell from its pace of the preceding 2 years, while metro growth held steady. Yet, rural and small-town areas continued to see some net inmovement of people. Counties where minorities have the greatest concentration diverged from the overall nometro growth pace, either toward faster growth in Native American and Hispanic areas or slower change in Black areas.

The major demographic news for rural and small-town America in the 1990's has been the rebound of population growth and the resumed net inmovement of newcomers from metro areas. Almost three-fourths of all nonmetro counties grew in population from 1990 to 1997, whereas only half did so in the 1980's. And the great majority of the growing counties (seven-eighths) derived some or all of their increase from inmovement of former metro residents and/or foreign immigrants. This is a far cry from the conventional pattern of the past and of the 1980's, when rural communities were viewed as places of chronic exodus to the cities.

In the most recent period—July 1, 1995, to July 1, 1997—however, nonmetro growth slowed somewhat, with fewer counties having population increase and net inmigration than in the first half of the decade. Part of this slowdown corresponds with a modest reduction in growth rate of the U.S. population as a whole since the early 1990's, but more of it derives from a slackened pace of nonmetro growth relative to that in metro areas. For just 1 year, 1994-95, nonmetro areas grew more rapidly than metro areas, but since then nonmetro growth has fallen by a third while metro growth has risen slightly (fig.1).

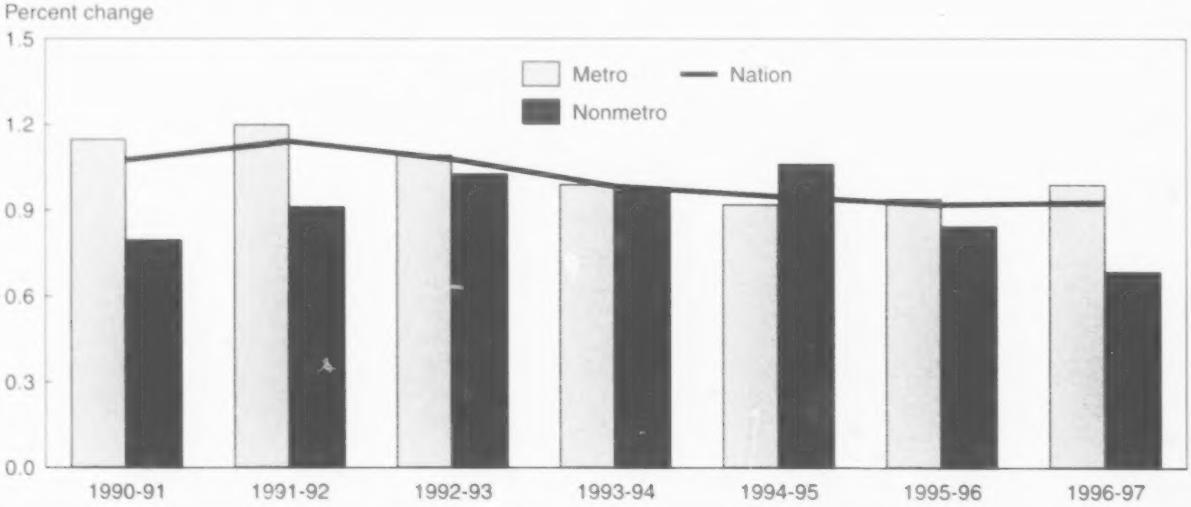
Yet it is equally important to note that the slower nonmetro growth of 1995-97 still exceeded that obtained from natural increase alone (that is, surplus of births over deaths) and continued to depend on significant net inmigration. Of the nonmetro population gain in those 2 years, about 400,000 out of 800,000 came from inmovement of people from metro areas and another 100,000 from foreign immigration.

The causes of the slowdown cannot be stated definitively, as many people who have moved into rural and small-town places have done so for noneconomic, quality-of-life reasons, the changing strength of which is not readily measured by available indicators. It is clear, though, that the somewhat more than half of nonmetro counties that do not adjoin metro areas (and thus are more on their own economically) have been the most affected.

Figure 1

Annual population growth rates for metro counties, nonmetro counties, and the Nation, 1990-97

Nonmetro growth has fallen since 1995, while metro growth has edged upward



Source: Calculated by ERS using data from the Bureau of the Census.

Just 58 percent of them grew in population during 1995-97 compared with 69.5 percent during 1993-95. By comparison, 78 percent of metro-adjacent counties grew during 1995-97, just a minor drop from 80.5 percent during 1993-95. The disproportionate post-1995 falloff in growth in counties not adjacent to metro areas also means that this change was very noticeable among farming-dependent counties, for they constitute many of the more remote counties. By 1995-97, slightly less than half of the farming-dependent group (49 percent) were still increasing.

The recent downward shift in nonmetro population change is consistent with trends in employment. For the 2-year period 1995-97, nonmetro employment rose just 1.8 percent after an increase of 4.5 percent in the previous 2 years. In contrast, metro areas showed no drop in employment growth during this time. Employment in counties not adjacent to metro areas rose by just 1.5 percent, barely a third of the 4.4-percent rise in the previous 2 years. In counties adjacent to metro areas, the rate fell to 2.0 percent from an earlier 4.6 percent during the peak recovery period from the early 1990's recession.

Western Growth Still Leads the Country

The pace of rural and small-town population change in the West continues to far outstrip that in other regions, with 15-percent growth since 1990, a rate triple that of the rest of the country (table 1 and fig. 2). Growth, supported by extensive inmigration, has been almost universal from the Rocky Mountain Front Range to the Pacific Coast. The nonmetro growth rate in the West exceeds that in the metro population of the region, a major change from the 1980's. Much of this increase seems attributable to people moving into the Mountain West for nonpecuniary reasons, whether they remain employed or are retired. The Northeast is a second region where nonmetro areas have the higher growth

Table 1

Regional population change, 1980-97

The West and South dominate nonmetro population growth

	Population			Change		Net migration rate		Net migration rate	
Region	1997	1990	1980	1990-97	1980-90	1990-97	1980-90	1990-97	1980-90
	Thousands			Percent		Thousands		Percent	
United States	267,636	248,765	224,930	7.6	10.6	6,151	5,274	2.5	2.3
Nonmetro	54,276	50,904	49,398	6.6	3.0	2,043	-1,373	4.0	-2.8
Metro	213,360	197,861	175,532	7.8	12.7	4,108	6,647	2.1	3.8
Northeast	51,588	50,828	49,137	1.5	3.4	-1,112	-612	-2.2	-1.2
Nonmetro	5,402	5,267	5,018	2.6	5.0	30	45	.6	.9
Metro	46,187	45,561	44,119	1.4	3.3	-1,142	-657	-2.5	-1.5
Midwest	62,460	59,669	58,867	4.7	1.4	278	-3,050	.5	-5.2
Nonmetro	16,571	15,978	16,310	3.7	-2.0	310	-1,047	1.9	-6.4
Metro	45,890	43,691	42,557	5.0	2.7	-33	-2,003	-.1	-4.7
South	94,187	85,456	73,755	10.2	15.9	4,564	4,282	5.3	5.8
Nonmetro	23,893	22,360	21,554	6.9	3.7	982	-461	4.4	-2.1
Metro	70,294	63,095	52,201	11.4	20.9	3,582	4,743	5.7	9.1
West	59,400	52,812	43,171	12.5	22.3	2,421	4,654	4.6	10.8
Nonmetro	8,410	7,299	6,516	15.2	12.0	720	90.0	9.9	1.4
Metro	50,990	45,513	36,655	12.0	24.2	1,701	4,564	3.7	12.5

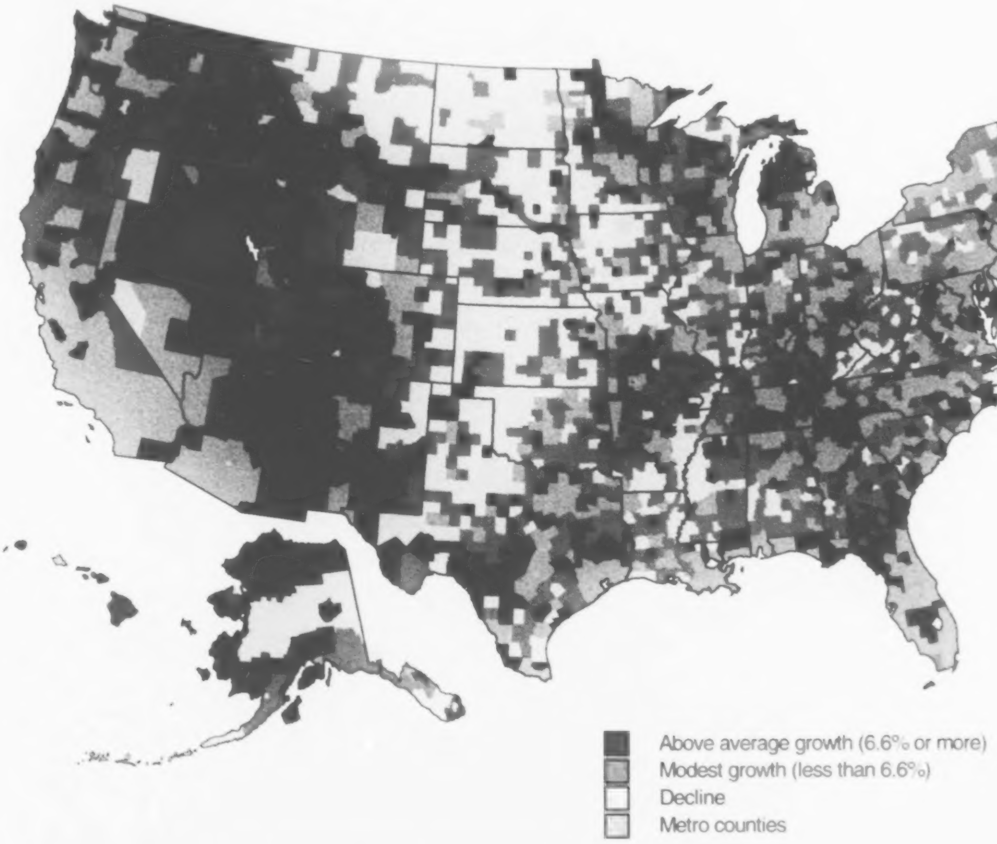
Note: See appendix for definitions of regions.

Source: Calculated by ERS using data from the Bureau of the Census

Figure 2

Nonmetro population change, 1990-97

Wide geographic variation still prevails



Above average growth (6.6% or more)
Modest growth (less than 6.6%)
Decline
Metro counties

Source: Calculated by ERS using data from the Bureau of the Census.

rate, but in great contrast to the West, both metro and nonmetro populations are growing at a very slow pace, below that of the 1980's. In this respect, the Northeast is unique in not having any nonmetro demographic rebound in the 1990's.

In both the Midwest and the South, poor economic conditions in the 1980's were accompanied by extensive outmigration of rural and small-town people, even to the point of outright regional population decline in the Midwest. These regions have shifted to moderate and more widespread increases, with net inmovement in the 1990's thus far. This generalization has notable exceptions, though. The Great Plains portion of each region continues to have large areas of loss, as do many parts of the Corn Belt, the Mississippi Delta, and the Southern Coal Fields. But such losses are now usually modest. They have been more than offset by growth nodes, such as the Ozarks, the Upper Great Lakes, the Southern Blue Ridge Mountains, anywhere in Florida, and areas tributary to such metropolises as Washington, Atlanta, Nashville, or Houston.

County Functions Remain Linked to Demographic Change

In this decade, counties that can be described as retirement destinations have consistently outrun all others in their rate of population gain (app. table 4). Such counties number just 8 percent of all nonmetro counties, but with a growth rate two and a half to three times as high as other counties, they have acquired 30 percent of total nonmetro growth since 1990. They have not been exempt from the reduced growth that has affected all types of nonmetro counties since 1995, but have retained their pace more so than most others, and they are the only type to continue averaging better than 2.0-percent increase annually. It needs to be stressed that the retirement areas are very attractive to people of younger ages as well, for these areas often have natural or other amenities of general appeal. Their population under age 65 rose by 19 percent from 1990-97, almost as high as the 20-percent growth for people 65 and over.

The greatest consistency in very recent trends compared with those in 1993-95 has been among manufacturing counties and commuting counties. Areas specialized in manufacturing at the beginning of the decade have the largest population (16.7 million) of any of the types defined by ERS, with three-tenths of the entire nonmetro population. Their growth rate has been steadily at or near the national nonmetro average, and from 1995 to 1997, their growth was 86 percent of the 1990-95 rate. They have seldom been a source of major growth in the 1990's, but neither have they been subject to the declines incurred by so many farming or mining areas. The commuting counties (about a fifth of which are also manufacturing areas) presumably have sustained their growth levels since 1995 because so many draw new residents from nearby metro areas.

Farming and mining-dependent counties, which already had the lowest aggregate population growth rates in the first half of the 1990's, have been the most strongly affected by the downturn in nonmetro growth since 1995. In the mining counties, the increase from 1995 to 1997 was just 40 percent of the rate of 1993-95, and the farm counties slipped to a rate just 63 percent of that of the prior 2 years. Both county types have been focused on industries undergoing employment loss from improved labor productivity, and, in the case of mining, from local depletion of marketable reserves. But we do not know of specific events during 1995-97 that may have triggered such a reduction in population growth, other than the improved state of the metro economy, which may have attracted residents of the farming and mining counties, and increased retention of people in metro areas in general.

Nearly a fourth of nonmetro counties have had persistently high incidence of poverty, with 20 percent or more of the population poor in each of the last four censuses, 1960-90. As a class, these counties grew in population by 5.5 percent during 1990-97. Although this is a rate of increase below that of all other counties, it still involved net inmigration in a majority of cases. Thus, high local poverty has not necessarily been a barrier to retaining residents and attracting newcomers in this decade. In some cases, recent population growth in these areas has been accompanied by equal or higher income increases; in other instances, it has not.

Growth of Older Population Slows and in Many Places Ends

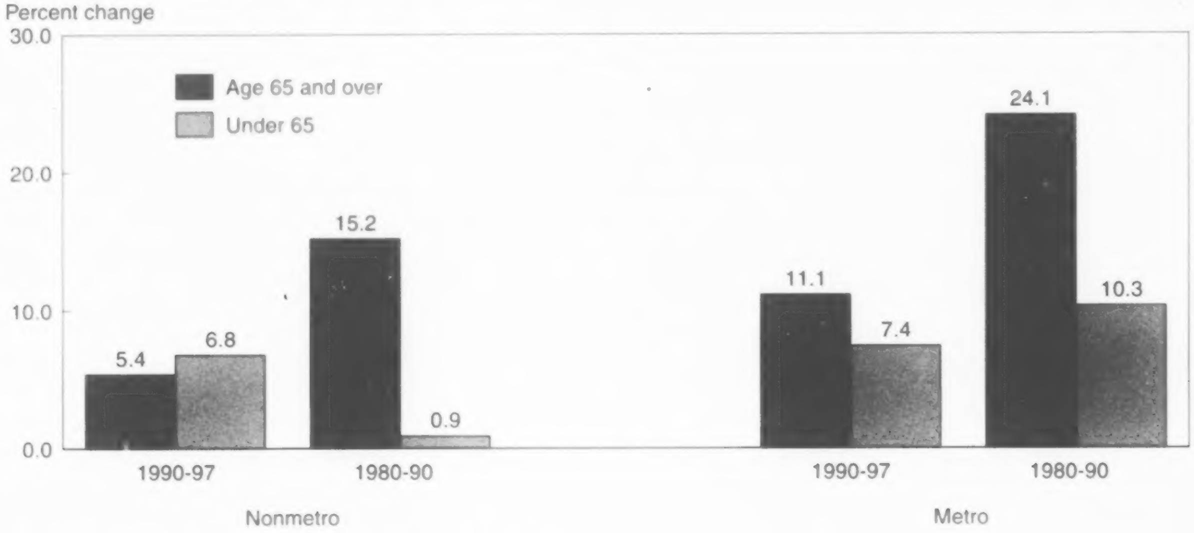
We noted in the 1997 socioeconomic conditions issue of *RCaT* that the number of people aged 65 and over in nonmetro areas was no longer increasing as rapidly as the population below that age, and that this was in distinct contrast with the metro population. This trend has continued, despite the concurrent rapid inmovement of older people—many from metro places—into nonmetro retirement counties. From 1990 to 1997, the older nonmetro population rose by just 5.4 percent, compared with a 6.8-percent increase among those under 65 (fig. 3), despite a substantial influx of older metro retirees into a number of nonmetro counties. A closer look shows that this pattern first occurred in the July 1, 1992-July 1, 1993, period and has widened since.

The provisional 1997 estimates reveal outright declines of older persons in over 900 nonmetro counties since 1990, an increase of more than 90 counties just since 1996. In farming-dependent counties, the total number of older people has fallen in all but 1 year since 1993, and in mining counties, the number fell for the first time in 1997. The proportion of the population at age 65 and over in the farming counties slipped from 16.9 percent in 1990 to 16.1 percent in 1997, a drop remarkable not so much for the amount of decline but for

Figure 3

Growth of population 65 years and over and under 65, 1980-97

During the 1990's, the nonmetro older population has grown more slowly than in metro areas during the 1980's



Source: Calculated by ERS using data from the Bureau of the Census.

the fact that it happened at all, given the common image of farm-dependent areas as places of ever-rising age. But the trend has not been limited to very rural counties. Many areas that have small cities and that function as trade and service centers for agricultural districts or have manufacturing dependence have also shown a drop in persons 65 and over.

Persons reaching age 65 in 1997 were born in 1932, during the heart of the Great Depression, when the birth rate was nearly at its lowest. This fact contributes to a slowing of the increase in the number of older people everywhere. But, the current declines in elderly population in hundreds of rural counties are believed to reflect the extensive outmovement of young adults from these counties in earlier decades at the peak of the decline in number of farms. Such cohorts were sufficiently depleted from this process that they are now too small to fully replace deaths of older people. Outmigration of persons of retirement age from farming counties adds to the trend, but is not a new factor. The current widespread slow growth or decrease in nonmetro older population will almost certainly moderate or end when the "baby boomers" begin to enter old age after 2006. Then increasingly after 2011, both the number and proportion of nonmetro elderly should rise as the largest cohorts of "baby boomers" reach 65.

Minority Counties Vary from National Patterns of Nonmetro Change

Data are not available to estimate reliably the current population of minorities in most counties. But all of the principal minorities have a continued degree of geographic concentration, based on historical settlement patterns. Thus, it is informative to determine current overall trends in the areas where they are relatively most numerous.

As a whole, nonmetro counties with large percentages of Black residents have had either modest population increases in the 1990's or declines. Their overall change was just 1.1 percent in majority Black counties and 4.2 percent in those where between a third and a half of residents were Black in 1990 (table 2). Such counties are almost all found in the Southern Coastal Plain, from Virginia to Texas. Local economies have been more supportive of population retention in those areas of the Atlantic States than in those of the Gulf South.

In the counties of the Mississippi Delta that have large Black minorities, modest population decline continues to be the dominant pattern. These prime agricultural areas are all classed as places of persistent high poverty and have yet to develop sufficient alternatives to farm-related work. Delta counties in which Blacks comprised a third or more of the population experienced 33,000 net outmigration of people during 1990-97, whereas all other Black counties in the South collectively had about 32,000 net inmovement. The Delta counties are a major exception to the more common pattern elsewhere of at least moderate growth and inmigration in persistent-poverty areas. Natural increase from births in the Black-inhabited areas of the rural South is still above that of heavily White areas, but is reduced from the past and much below that prevalent in other minority counties (fig. 4).

The predominantly American Indian or Alaskan Native counties have increased in population by 13.7 percent since 1990, a rate far above the national average. In most of these areas, the Native American proportion of the total rose between 1980 and 1990, and this trend is thought likely to have continued in the 1990's. In absolute numbers, the largest populations in the counties with Indian predominance are those of the Navajo and other tribes in the Four Corners region of the Southwest, plus the Sioux and other reservation groups of the Northern Plains. Such areas have high rates of growth from natural increase (averaging over 13 percent for 1990-97) that result from their young age structure and larger-than-average families. By contrast, in the nonmetro United States as a whole, natural increase provided just 2.6 percent growth. The Indian and Alaskan Native areas have collectively lacked any significant population change from net migration since 1990. This near balance between in- and outmovement follows a period of substantial exodus during the 1980's.

Table 2

Nonmetro areas' population change, by 1990 ethnic composition, 1980-97

Areas with minority population concentrations participate in rebound

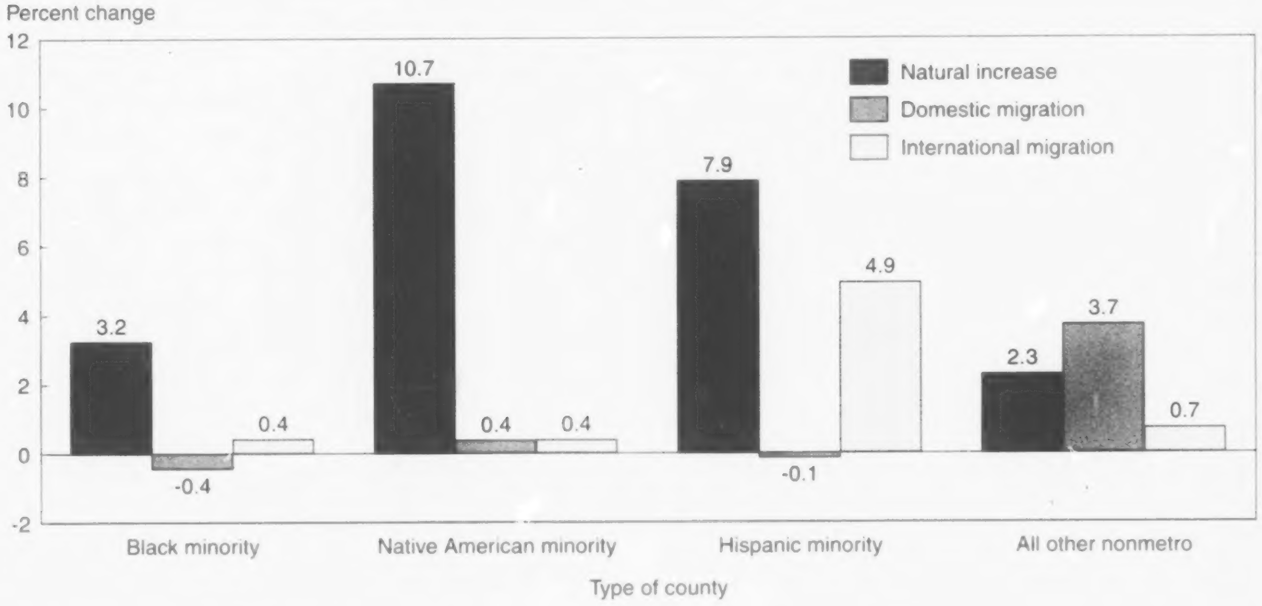
	Population			Change		Net migration		Net migration rate	
County type	1997	1990	1980	1990-97	1980-90	1990-97	1980-90	1990-97	1980-90
	Thousands			Percent		Thousands		Percent	
All nonmetro counties	54,276	50,904	49,398	6.6	3.0	2,043	-1,373	4.0	-2.8
Black:									
50.0 percent or more	1,361	1,347	1,408	1.1	-4	-33	-170	-2.5	-12.1
33.3 - 49.9 percent	3,018	2,896	2,860	4.2	1.3	32	-148	1.1	-5.2
Under 33.3 percent	49,897	46,661	45,131	6.9	3.4	2,044	-1,055	4.4	-2.3
Native American:									
50.0 percent or more	385	338	301	13.7	12	1	-37	.3	-12.3
33.3 - 49.9 percent	323	296	287	8.9	3.1	4	-30	1.3	-10.5
Under 33.3 percent	53,569	50,270	48,809	6.6	3.0	2,038	-1,306	4.1	-2.7
Hispanic:									
50.0 percent or more	796	683	615	16.5	11	45	-23	6.6	-3.7
33.3 - 49.9 percent	808	741	718	9.0	3.1	22	-53	3.0	-7.4
Under 33.3 percent	52,673	49,480	48,065	6.5	2.9	1,975	-1,297	4.0	-2.7

Source: Calculated by ERS using data from the Bureau of the Census.

Figure 4

Population change of nonmetro minority counties, by source, 1990-97

Growth comes largely from natural increase in minority counties and from migration elsewhere



Source: Calculated by ERS using data from the Bureau of the Census.

In a manner similar to the pattern of other minorities, areas with one-third to one-half Native American composition had an overall growth rate that was intermediate between those with lower representation and those where the group was a majority.

The nonmetro Hispanic heartland has been in the basin of the Rio Grande, from southern Colorado to the gulf coast. All told, predominantly Hispanic counties grew in population by 16.5 percent during 1990-97, double the national nonmetro pace. Those with a third to a half of the population Hispanic had somewhat slower growth of 9.0 percent. More so than the Black or Native American populations, Hispanics have been rapidly developing other nodes of nonmetro settlement, thus increasing the number of communities where they comprise a significant portion of the population or will do so shortly. This has been true in the High Plains of Texas, where the development of irrigated farming, along with oil and gas work, drew them in during the last half century. In a 20-county bloc of such counties, Hispanics exceeded a third of the population by 1990. Total population levels there have been nearly static or declining since 1990, reflecting falling employment in farming and mining, and contrasting with other Hispanic areas. All of the Texas High Plains counties have had domestic net outmigration in the 1990's. But, all of them have had foreign immigration, thought to be largely Mexican, and the Hispanic proportions are believed to be still rising.

Perhaps the best-known recent instances of further Hispanic deconcentration have occurred in the Farm Belt following the opening of meat slaughtering and processing plants that require large numbers of low-wage workers not available locally. Often the majority of these workers are Hispanics, both native-born and immigrant. Their numbers do not reach high proportions yet, but over time, many seem likely to settle permanently and go into other occupations. Some well-known cases are Storm Lake, IA; Garden City, KA; and Lexington, NE.

The Hispanic counties as a group have more immigration than the Black or Native American areas. In fact, of the 69,000 total net inmovement to Hispanic minority counties, 99 percent of it resulted from immigration. These counties acquired a third of all foreign immigrants to nonmetro America, despite having just 3 percent of the total nonmetro population. A majority of the immigration to the Hispanic counties occurred in those that directly border Mexico. An equal amount of growth stemmed from natural increase, which is well above the national average, but not as much as that of Native Americans.

The central features of nonmetro demographic change in counties with large proportions of minorities can be summarized as follows:

- Such areas have participated in the 1990's rural rebound on the whole, with higher rates of population growth than seen in the 1980's, and a shift from net outmigration to inmovement in most cases.

- The components of change for the three types of minority areas vary. Hispanic areas have grown from both high natural increase and foreign immigration.

- Native American areas have grown from high natural increase also, but with negligible inmovement to supplement it.

- Black areas have largely ended their heavy outmigration of the past, except in the Delta, but are growing at only a low-to-moderate pace from natural increase. *[Calvin Beale, 202-694-5416, cbeale@econ.ag.gov]*

Rural Areas Attract Young Families and College Graduates

The rural population increased, especially in the South and West, due to net migration from urban areas. The largest rural gains were among people in early career ages (26-30), including many young families. College graduates were well represented among rural inmigrants—a trend that began in the early 1990's and represents an important reversal of the rural "brain drain" of earlier decades.

During the 2-year period ending in March 1997, 3.8 million people moved into rural America from urban areas while 3.0 million moved in the opposite direction. The net rural gain of 415,000 persons per year is evidence of increased economic opportunity and residential amenities in rural areas and, at the same time, provides a human resource base for economic growth. In the rural-urban migration exchange, rural areas attracted a disproportionate share of young families and persons in early career years. Rural areas also attracted their fair share of college graduates, unlike earlier decades when rural areas lost a large proportion of their college graduates to urban areas. The rural South and West were the most popular migration destinations. Hispanics were overrepresented in the rural migration gains, and the rural South recorded a net influx of Blacks from both the urban South and from cities outside the region.

Highest Rural Migration Gains Were in Early Career Years and for Young Families

An average of 15 percent of rural residents moved each year during 1995-97 (table 1). Mobility was highest in the post-high school years (ages 18-25), with about 30 percent of people in that age group moving each year. Mobility during this stage of life is important for the development of human capital as people move to further their education and to explore and respond to job opportunities. Somewhat more than half of the moves were within the same county, but even some of these moves represented changes of employment or educational pursuit as did most of the moves between nonmetro counties and to and from metro areas.

Net movement into rural areas was highest in the early career period (ages 26-30), with rural areas gaining 2 percent per year. The 1.3-percent per year net rural gain for children ages 1-17 indicates that young families were well represented in this urban-to-rural migration. In the immediate post-high school period (ages 18-25), migration both into and out of rural areas was high, but net movement into rural areas was negligible. This is not surprising because many people move to cities or suburban areas to attend college after completing high school. Both mobility rates and net urban-to-rural migration were lower in

Table 1

Average annual percentage of nonmetro residents who moved, by age, 1995-97

Mobility was highest during the post-high school years (18-25), but net migration into nonmetro areas was highest in the early career ages (26-30)

	Age group						
Mobility/migration status	1-17	18-25	26-30	31-40	41-64	65+	All ages
	Percent						
Total mobility of nonmetro residents[1]	18.2	30.5	26.8	16.2	8.2	4.2	15.0
Moved within same county	10.9	18.6	15.7	9.4	4.4	2.3	8.8
Moved between nonmetro counties	3.1	5.2	4.0	2.7	1.4	.8	2.5
Moved from metro to nonmetro	4.2	6.7	7.1	4.1	2.4	1.1	3.7
Moved from nonmetro to metro	2.9	6.5	5.1	3.4	1.7	1.0	2.9
Net migration from metro to nonmetro	1.3	.2	2.0	.7	.7	.1	.8

[1] Total mobility is the percentage of the current nonmetro residents who moved during the previous year, whether within the same county, between nonmetro counties, or in from a metro area.

Source: Prepared by ERS using data from the March 1996 and March 1997 Current Population Surveys.

mid- and late-career years, but the rural gain in these age groups was still substantial (0.7 percent per year). Mobility was lowest in retirement years (ages 65 and up), and the net rural gain of retirees was negligible.

Life-cycle migration patterns varied among regions. The highest net migration rates were into the rural South and West (table 2). Younger migrants dominated migration gains in the rural South, while workers in mid- and late-career years were predominant in the West. Migration gains in the rural Northeast were fairly uniform across the age spectrum. The Midwest was the only region that lost population through domestic migration, and its losses were mostly in the mid- and late-career age group. Retirement-age migrants moved, on balance, into the rural Northeast and South and out of the rural West. Net migration of retirement-age persons in the rural Midwest was negligible.

Rural Migration Gains Include Fair Share of College Graduates, but High-Income Households Are Under-Represented

Recent migration patterns differ from those of previous decades in the educational composition of the migrant streams to and from rural areas. In the early 1990's, for the first time in many years, more college-educated people migrated into than out of rural areas (see "Rural-Urban Migration Patterns Shift" in *Rural Conditions and Trends*, vol. 6, no. 1, p. 11). This pattern continued and strengthened in the mid-1990's. Net rural inmigration of persons with a college degree increased from under 0.5 percent per year in 1992 and 1993 to about 1 percent per year in 1996 and 1997 (fig. 1). Average net rural migration gains for the 1995-97 period were similar for all education categories (fig. 2). In- and outmigration rates were higher for persons with more education, reflecting their generally higher mobility.

Comparing migration rates across income categories gives a picture somewhat at odds with the comparison of education categories, however. The poor (incomes below the

Table 2

Nonmetro average annual net migration, by region, 1995-97

Rural areas in all four regions gained college graduates

Characteristic	Region				Nonmetro
	Northeast	Midwest	South	West	U.S.
			Percent		
Total	0.38	-0.16	1.40	1.32	0.81
Age:					
1-30	.44	-.02	2.12	1.22	1.16
31-64	.29	-.34	1.02	1.96	.67
65+	.51	-.05	.39	-.52	.14
Educational attainment (age 25+):					
Less than high school graduation	.37	-.10	.86	2.75	.79
High school graduation	.65	0	1.49	-.48	.63
Some college	-.46	-.24	.57	2.50	.59
4-year college degree or more	1.90	.40	.72	1.53	.92
Poverty status:					
Poor	4.08	-1.63	1.52	3.22	1.26
Nonpoor	-.07	.04	1.38	.92	.72

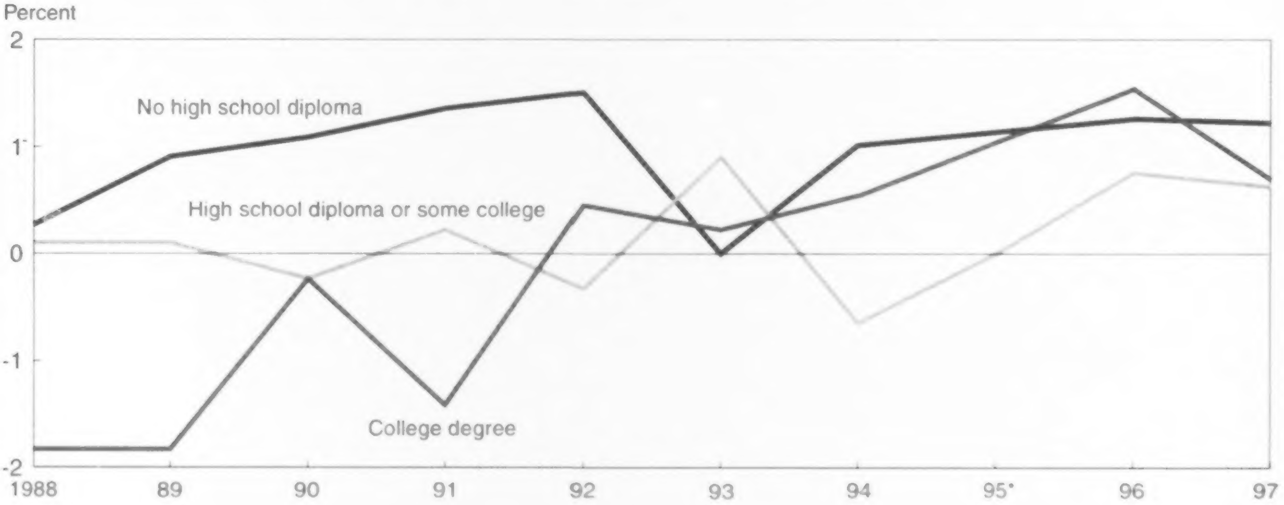
Notes: Table values are net migration exchange with all metro areas and with nonmetro areas in other regions.
See appendix for definition of regions, pp. 118-119.

Source: Prepared by ERS using data from the March 1996 and March 1997 Current Population Surveys.

Figure 1

Change in the nonmetro population ages 25-64 from net migration, by education completed

Net migration of college-educated persons into rural areas has increased markedly in the 1990's



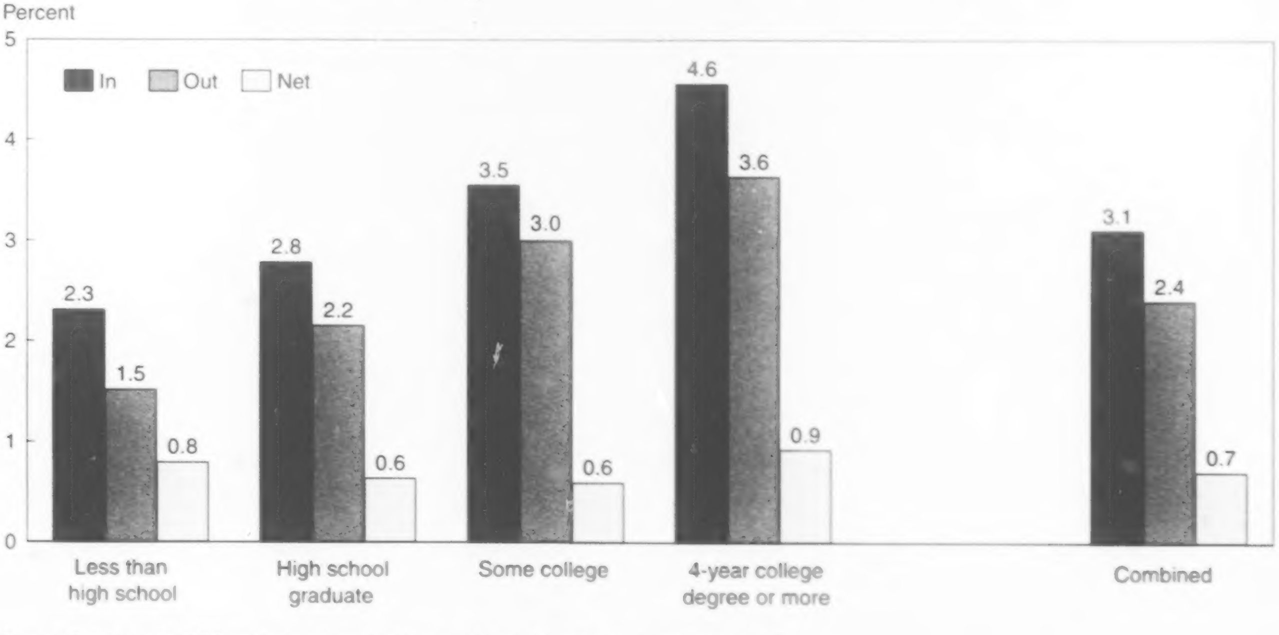
*Data not available for 1995.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Figure 2

Average annual domestic migration rates to nonmetro areas, by education, 1995-97 (persons age 25 and over)

People with more education were more mobile, but net urban-to-rural migration rates were similar for all education levels



Source: Calculated by ERS using data from the March 1996 and March 1997 Population Surveys.

66

poverty line (incomes from 100 to 200 percent of the poverty line) migrated in at a net rate of 1.6 percent, and those in the lower-middle income category (incomes from 200 to 300 percent of the poverty line) migrated in at a net rate of 0.9 percent (fig. 3). For households with income higher than 300 percent of the poverty line, net migration rates were near zero. Rural areas already had a disproportionate share of households with income less than 300 percent of the poverty line (see *Rural Conditions and Trends*, vol. 8, no. 2, p. 32), so this migration pattern further increased the rural-urban disparity in income. To some extent, this pattern reflects the inmigration of young families with their generally lower incomes.

The education and income-specific rural migration patterns described above were widespread geographically (table 2). Net migration of college-educated persons was positive in all four regions and exceeded that for the total regional population in all regions except the South. Net inmigration of the poor to rural areas exceeded that of the nonpoor in all regions except the Midwest, where the poor migrated out of rural areas, on balance. Inmigration of low-income households and persons with less than high school education was particularly high in the rural West (3.22 percent and 2.75 percent, respectively). This partly reflects adjustment to high international immigration of less educated persons to the urban centers of the West. The excess low-skill labor supply creates a migration "push" out of the cities. At the same time, robust service sector growth in fast-growing, high-amenity areas of the rural West creates a migration "pull" for less educated workers.

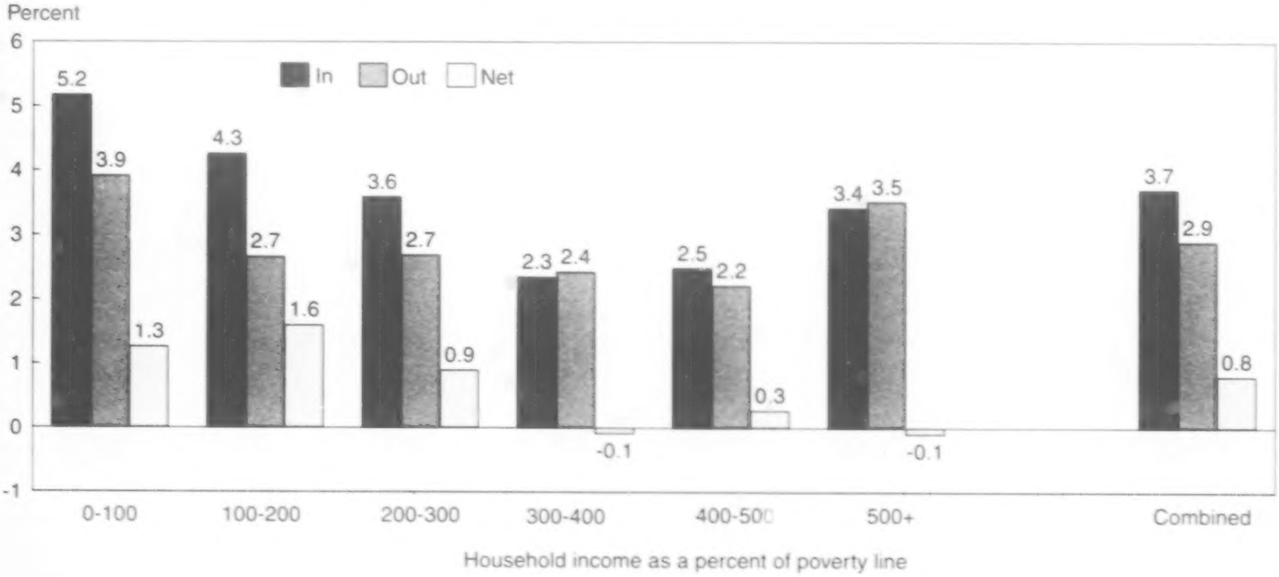
Rural South Was Most Popular Migration Destination

Rural gains from domestic migration were concentrated in the South and West (fig. 4; see pp. 118-119 for description of regions). Of the annual average net rural gain of 415,000 persons, three-quarters was accounted for by the South and one-quarter by the West.

Figure 3

Average annual domestic migration rates to nonmetro areas, by income level, 1995-97

Rural migration gains were highest among low- and middle-income households

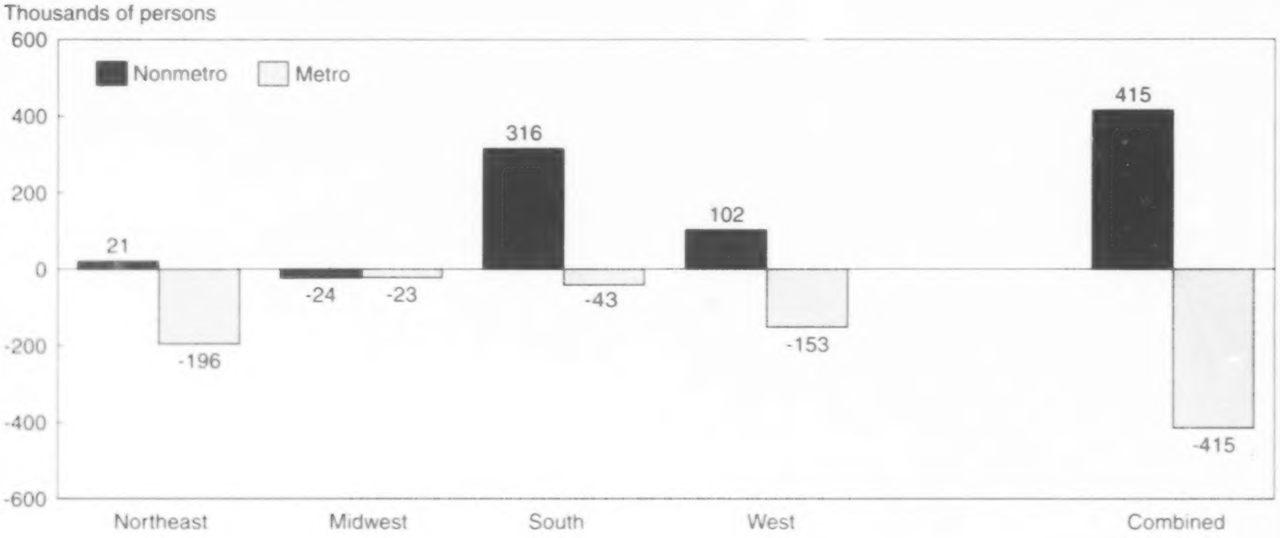


Source: Calculated by ERS using data from the March 1996 and March 1997 Current Population Surveys.

Figure 4

Average annual net domestic migration, by region and residence, 1995-97

The rural South was the most popular destination for domestic migrants; metro areas in all four regions registered net outmigration as did the rural Midwest



Source: Calculated by ERS using data from the March 1996 and March 1997 Current Population Surveys.

Urban areas in all four regions lost population through domestic migration, with the highest losses in the Northeast and West.

The large net influx to the rural South (1.4 percent per year) is unprecedented in recent decades. A detailed examination of migration flows (not shown here) reveals that most of the gain in the rural South was the result of net exchange with the urban South. Smaller gains to the rural South came from net exchange with urban areas outside of the South and from the rural Midwest. Within the rural South, Texas and Georgia were the most popular migration destinations.

Net Rural Inmigration Highest for Hispanics

The racial and ethnic composition of the migrant streams to and from rural America resembled that of the resident rural population, except that Hispanics were over-represented among the urban-to-rural migrants (fig. 5). This resulted in a net annual migration gain of 2.4 percent for rural Hispanics. International immigration of Hispanics (not shown) contributed an additional 2.0 percent to the rural Hispanic population, although this was partially offset by an unknown amount of international emigration. Given these migration rates and the relatively high rate of natural increase (excess of births over deaths) of rural Hispanics, it is not surprising that they constitute the fastest growing racial-ethnic group in rural America.

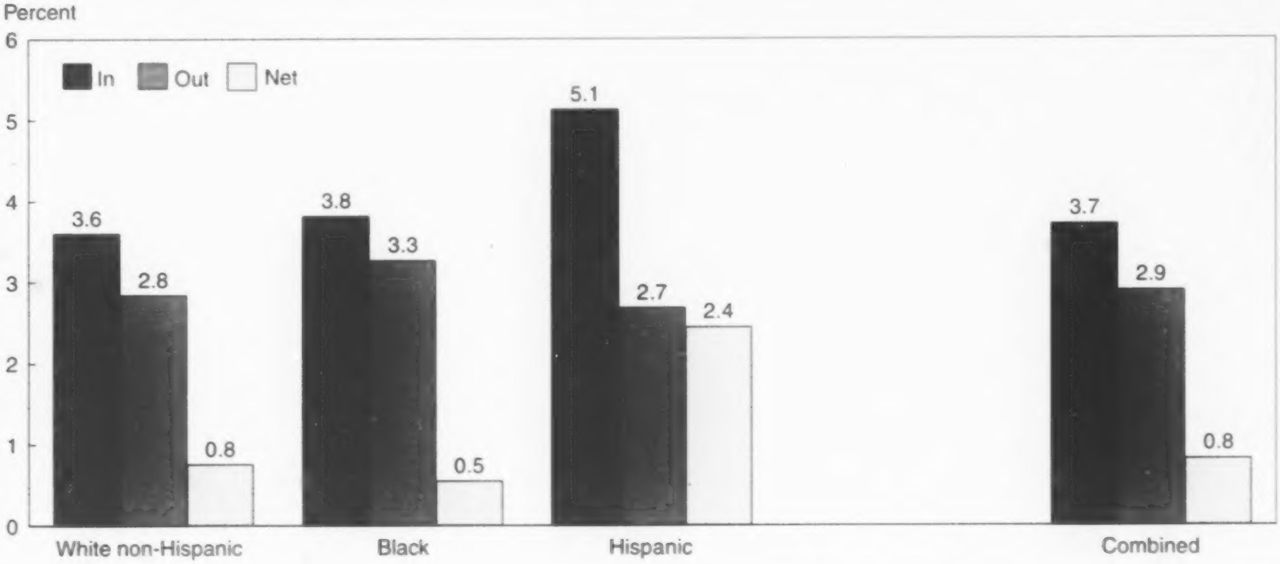
Blacks Returning to the Rural South

For several decades, Blacks migrated, on balance, out of the rural South, going mostly to urban industrial centers both in and out of the region. In recent years, that trend has reversed, and during the 1995-97 period, Black inmigration to the rural South exceeded outmigration by 29,000 persons per year. Almost all of the Blacks moving into the rural South came from the urban South (fig. 6). This is a new pattern. Since the 1970's, the

Figure 5

Average annual domestic migration rates to nonmetro areas, by race and ethnicity, 1995-97

Urban-to-rural migration was much greater for Hispanics than for non-Hispanic Whites and Blacks

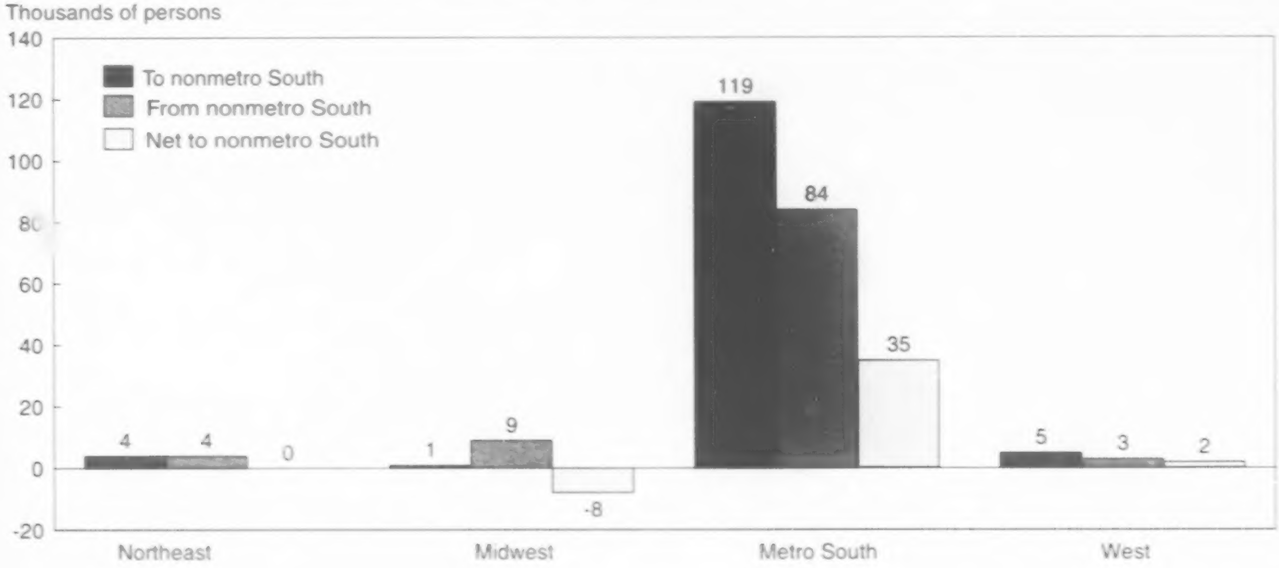


Source: Calculated by ERS using data from the March 1996 and March 1997 Current Population Surveys.

Figure 6

Average annual migration of Blacks to and from the nonmetro South, 1995-97

The overwhelming majority of Black migration to the rural South was from the urban South



Source: Calculated by ERS using data from the March 1996 and March 1997 Current Population Surveys.

rural South has gained Black population from urban centers outside the South, but not previously from the urban South. This trend should be interpreted cautiously, however, until confirmed by an additional year of survey data. Net migration is a small difference between two much larger migration streams—inmigrants and outmigrants—and can fluctuate considerably from year to year. Estimates based on sample surveys can also fluctuate even when actual net migration is stable. *[Mark Nord, 202-694-5433, marknord@econ.ag.gov; John Cromartie, 202-694-5421, jbc@econ.ag.gov]*

About the Data

These migration statistics are based on data from the Current Population Surveys of March 1996 and March 1997, which together provide data on migration during the period 1995-97 (see appendix, p. 115, for information on the Current Population Survey). Combining two annual surveys increases the reliability of the migration estimates. We concentrate in this article on domestic migrants, and especially on those who moved between rural and urban areas. International immigration contributed an additional 100,000 persons per year to rural areas, and 1.2 million persons per year to urban areas. However, international immigration is partially offset by emigration out of the United States to other countries, and the extent and character of migration to other counties is not captured by this survey of U.S. households.

Socioeconomic Circumstances of Minority Elderly Differ from Those of White Elderly

Current Population Survey data from 1997 show that a smaller proportion of the minority population is age 60 and older than is the White population in both metro and nonmetro areas. Minority elders are less likely than Whites to rate their health as excellent or very good. Black elders are more likely to be widowed and living alone than are White elders, increasing the likelihood of poverty. A larger share of minority elders are poor or near poor than are their White counterparts, especially in nonmetro areas.

Because the U.S. population is aging, older Americans will have a greater impact on social and policy issues. The older population itself is a diverse group, and one elderly person's health, social, and economic circumstances may differ markedly from another's. Access to health, medical, and social services varies by place of residence, with many nonmetro areas deficient in such services. This is especially important because nonmetro areas had a larger share of their population at age 60 and older in 1997 (18 percent) than metro areas (15 percent). The social and economic characteristics of the older population by race and ethnicity are examined to determine how the well-being of minority elders compares with that of the White elderly.

Today's older population is predominantly White, but it is becoming more racially and ethnically diverse. While less than 10 percent of the older population in 1990 was Hispanic or races other than White, this share is expected to increase to about 20 percent by the middle of the next century. About one-fifth of older Blacks and Hispanics were age 80 and older in 1990; by 2050, this rapidly growing segment of the older population is expected to increase to almost one-third, and even higher for the White elderly. While the proportion of the population age 60 and older is relatively small among minorities, this is a growing population and each race and ethnic group has distinct characteristics.

Key minority status differences between older persons in metro and nonmetro areas include the following: (1) minorities are a smaller share of the nonmetro elderly than the metro elderly, (2) nonmetro Black elders are more likely to be widowed and to live alone than are metro elders, (3) nonmetro minority elders are less healthy and less educated than are metro and nonmetro White elders, and (4) nonmetro minority elders tend to be poorer than metro elders.

Nonmetro Elders Include a Smaller Share of Minorities than Metro Elders

The older population is predominantly White; in 1997, 92 percent of nonmetro persons age 60 and older were White, compared with 84 percent of metro elders. In metro areas, 10 percent of those age 60 and older were Black and 6 percent Hispanic. In nonmetro areas, only 6 percent of the elderly were Black and 2 percent Hispanic. Minorities are more likely to reside in metro areas, with the exception of American Indians.

The distribution of the metro-nonmetro population by age and minority status reveals a younger age structure among minorities due to higher fertility, somewhat higher mortality, and more recent immigration. In 1997, only 25 percent of the White population in nonmetro areas was under age 18, compared with 40 percent of Hispanics (fig. 1). At the other end of the age spectrum, 11 percent of Blacks were age 60 and older, while less than 10 percent of other minorities were elderly. This is in direct contrast with the nonmetro White population, with 20 percent age 60 and older. In future years, there will be greater ethnic and racial diversity within the older population due to the younger age structure of minorities.

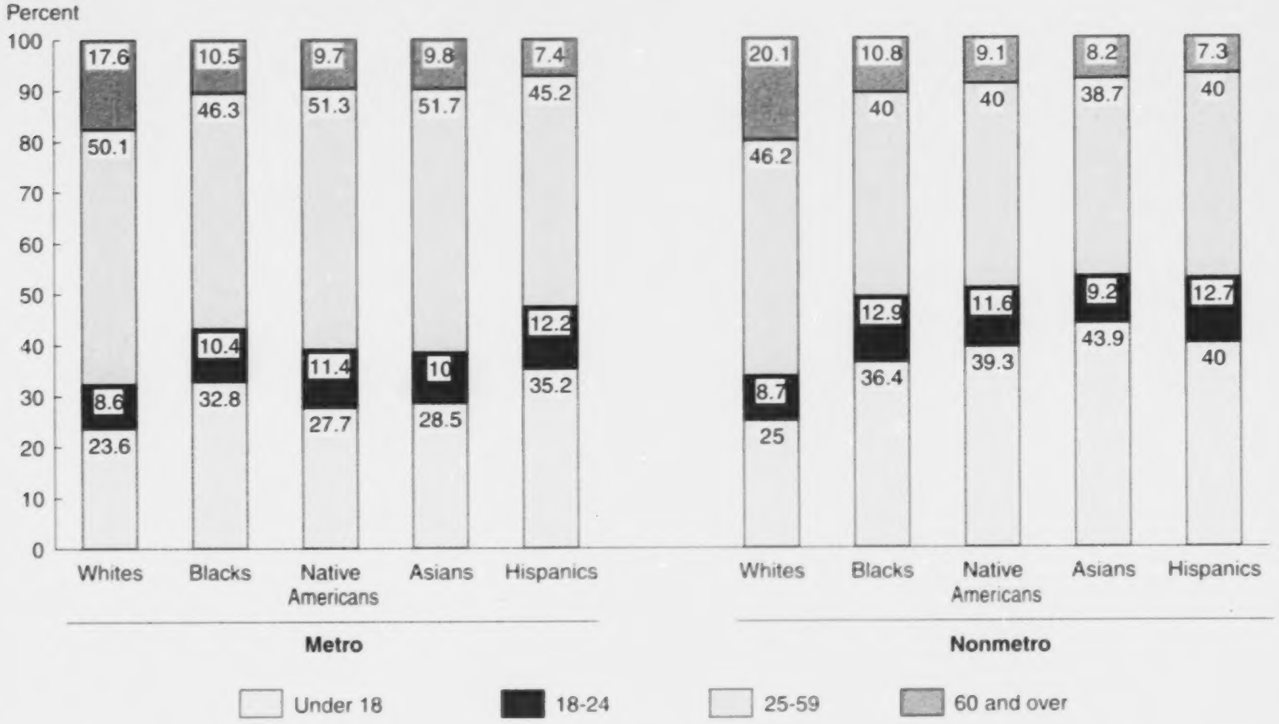
Minority Elders Are Concentrated in the South and West

The older population is concentrated in the South, with a substantial proportion of the nonmetro White elderly residing in the Midwest. Among all nonmetro elders age 60 and older, 44 percent resided in the South and 33 percent in the Midwest in 1997. Among their metro counterparts, 33 percent were in the South and 21 percent in the Midwest. Many regions dependent on farming and mining, and with a prior history of slow growth and net outmigration—such as the Corn Belt, Great Plains, and Southern Appalachian Coal Fields—have been aging through the loss of young adults. Some areas have gained older residents, largely because of an influx of retirees. Other areas have sustained decade-long losses of outmigrating, young working-age people, while older persons have

Figure 1

Population distribution by age, race/ethnicity, and residence, 1997

Whites have a larger proportion age 60 and older than minorities



Source: 1997 March Current Population Survey (CPS) data file.

remained and become an ever-increasing proportion of the total population. This changing geographic distribution of the older population has led to disparities between resources and needs—such as medical services, social services, housing, and long-term care—in communities, regions, and States.

Nonmetro Black elders are concentrated in the South (89 percent) and nonmetro Hispanic elders in the South (60 percent) and West (34 percent). In the general population, nearly three-fourths of rural Blacks reside in the South Atlantic and East South Central divisions, and almost three-fourths of rural Hispanics are located in the West South Central and Mountain divisions. Asian Americans are clustered geographically in the West and American Indians in the South and West. Because of the small size of the Asian and American Indian elderly populations, the rest of this analysis will restrict comparisons to elderly Whites, Blacks, and Hispanics.

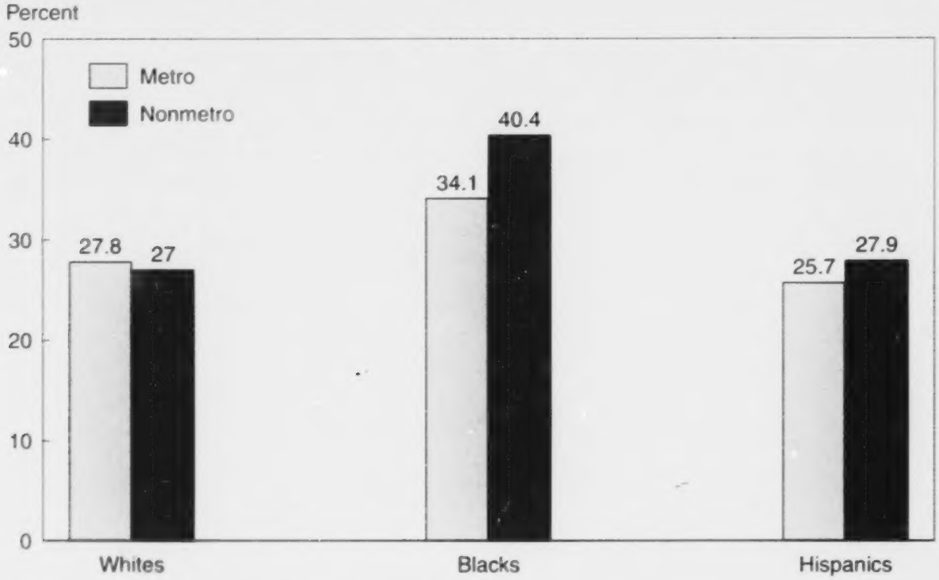
Black Elderly Persons Are More Likely to Be Widowed and to Live Alone than White or Hispanic Elders

Nonmetro older persons were more likely to be married (61 percent) than their metro counterparts (57 percent) in 1997. Married persons tend to be healthier and to have greater economic security. Among elders, Whites and Hispanics are more likely than Blacks to be in a husband-wife family; 63 percent of Whites, 61 percent of Hispanics, and 34 percent of Blacks in nonmetro areas were in married-couple families in 1997. On the other hand, nonmetro Black elders are more likely to be widowed (40 percent) than nonmetro White elders (27 percent) (fig. 2).

Figure 2

Persons 60 years and older who are widowed, by race/ethnicity and residence, 1997

Black elderly persons are more likely to be widowed



Source: 1997 March Current Population Survey (CPS) data file.

Of nonmetro persons age 60 to 74, 18 percent were widowed, but by age 75, 49 percent of nonmetro elders were widowed. Moreover, the female population (nearly two-thirds of the older population) is more likely to be widowed. In 1997, 81 percent of all widowed persons age 60 and older were female. Widows are more vulnerable in terms of having less social support and fewer financial resources for health care.

A person's marital status also affects whether one lives alone. Almost one-third of White elders in nonmetro areas live alone and about one-half of Blacks do so. Regardless of residence, 29 percent of Hispanic elders live alone. The likelihood of living alone increases with advancing age, and persons living alone are more likely to experience poverty.

Minority Elderly Are Less Healthy than Their White Counterparts

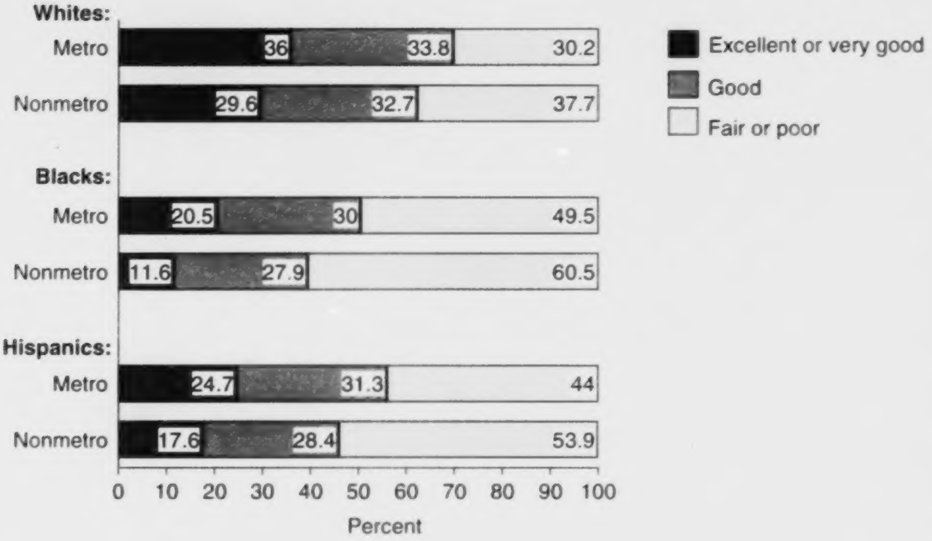
Nonmetro elders are more likely to assess their health as fair or poor than metro elders. Minorities are less likely than Whites to rate their health as excellent or very good (fig. 3). Corresponding to their lower self-assessments of health, Black elders are also more likely to report having a health problem or disability that prevented or limited their working, as well as having retired or left a job for health reasons. While 46 percent of nonmetro Black elders reported having a health problem or disability that limited their working or prevented employment altogether, only 25 and 28 percent of their Hispanic and White counterparts did so. Furthermore, a higher proportion of nonmetro Black elderly (14 percent) retired or left a job for health reasons than did Whites (9 percent) or Hispanics (11 percent).

Despite differences in self-assessed health status, comparable proportions of nonmetro and metro elders were covered by Medicare (about 77 percent at ages 60 and above). Nonmetro Whites had a higher proportion covered (83 percent) than either Blacks (77 percent) or Hispanics (73 percent). Medicaid coverage shows an opposite racial-ethnic pattern, with minority elders more likely to be covered by Medicaid. Nearly 29 percent of Blacks and 19 percent of Hispanics in nonmetro areas had Medicaid coverage, while only

Figure 3

Health status of older persons, by race/ethnicity and residence, 1997

The nonmetro elderly were less likely to rate their health as excellent or very good, with minorities less likely to report excellent or very good health than Whites



Source: 1997 March Current Population Survey (CPS) data file.

8 percent of nonmetro Whites did so. This helps bridge the gap in medical coverage. However, many nonmetro elders may still have unmet needs because many nonmetro areas have limited health care and social services.

Nonmetro Minorities Are Less Educated than Their White Counterparts

While 30 percent of metro elders age 60 and older had not graduated from high school, 39 percent of nonmetro elders had not graduated. An even more striking difference is found within nonmetro areas—73 percent of Black elders and 77 percent of Hispanic elders had not completed high school, compared with 36 percent of Whites (fig. 4). This educational gap would have placed the nonmetro older population at a financial disadvantage throughout their working careers, resulting in higher poverty rates and lower retirement incomes. Educational attainment will be higher for tomorrow's elderly because younger cohorts are more likely to have completed high school and college than is true of the elderly today.

Labor force participation changes around age 60 and older due to retirement or partial retirement. In 1997, 80 percent of all persons age 60 and older were not working, and many of the remaining elders were employed in private or self-employment. A somewhat lower proportion of nonmetro elders had retired from the labor force in 1996 than metro elders, although a greater share of nonmetro elders were not in the labor force due to disability. Nearly 8 percent of nonmetro persons age 60 years and older were not in the labor force because of disability, compared with 5 percent of their metro counterparts.

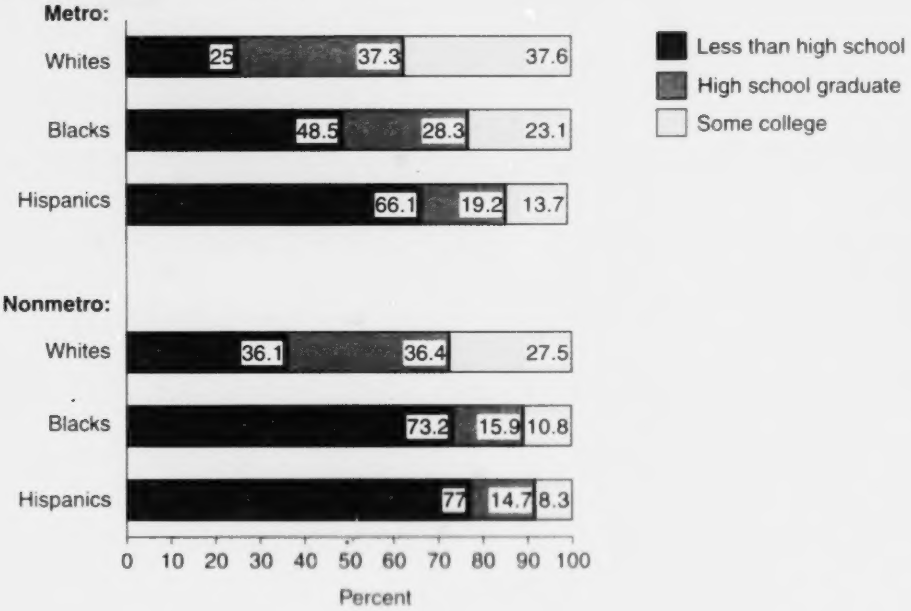
Minority Elders Have Lower Incomes than White Elders

Nonmetro elders have lower median family incomes than their metro counterparts for all race-ethnic groups. Incomes are much lower for minority elders. For nonmetro persons age 60 and older, White median income was $22,320 in 1996; Black median income was $12,600, and Hispanic median income was $14,373. About 33 percent of White elders in

Figure 4

Educational attainment of older persons, by race/ethnicity and residence, 1997

Minorities, especially in nonmetro areas, are less educated than Whites, with a smaller share having attended college



Source: 1997 March Current Population Survey (CPS) data file.

nonmetro areas had incomes under $10,000, whereas 55 percent of Blacks and 44 percent of Hispanics had low incomes.

Several other measures of relative economic well-being include homeownership (which reflects one's assets) and the receipt of Supplemental Security Income (SSI) or food stamps (both of which indicate low assets and income). Minority elders are less likely to own their own homes; nearly 89 percent of nonmetro Whites owned their homes, compared with 78 percent of Blacks and 81 percent of Hispanics. Minority households are more likely to receive SSI and food stamps. While only 4 percent of nonmetro White elders received SSI, 27 percent of Blacks and 12 percent of Hispanics did so. About 24 percent of nonmetro Black elders received food stamps, as did 14 percent of Hispanics and only 5 percent of Whites.

Nonmetro elders depended somewhat more on Social Security income than metro elders, who were more likely to have other sources of retirement income. Among persons 60 years and older, 87 percent in nonmetro areas received Social Security income, compared with 82 percent in metro areas. Whites have somewhat of an advantage; 87 percent of nonmetro Whites, compared with 80 percent of Blacks and 76 percent of Hispanics, received Social Security payments. Forty-two percent of metro persons age 60 and over received retirement income other than Social Security, compared with 36 percent of nonmetro elders. Minority elders fared even worse on this source of income; in nonmetro areas, 37 percent of Whites received other retirement income, while only 17 percent of Blacks and 13 percent of Hispanics did so. Minorities also were less likely than Whites to receive income from interest and dividends.

A Larger Proportion of Nonmetro Minority Elders Are Poor or Near-Poor than Their Metro Counterparts

At age 60 years and older, 13 percent of nonmetro elders were poor and 16 percent near-poor (100-149 percent of poverty level), compared with 10 percent poor and 12 percent near-poor among metro elders. A larger proportion of minority elders are poor or near-poor, especially in nonmetro areas. In 1996, 23 percent of metro Black elders and 37 percent of nonmetro Black elders were poor; these rates are about three times those of Whites (fig. 5).

Minorities comprise a larger share of the poor older population than would be expected based upon their small representation among the elderly. Of the poor older population in metro areas, 64 percent were White, 22 percent Black, and 13 percent Hispanic. Among poor older persons in nonmetro areas, 79 percent were White, 15 percent Black, and 5 percent Hispanic.

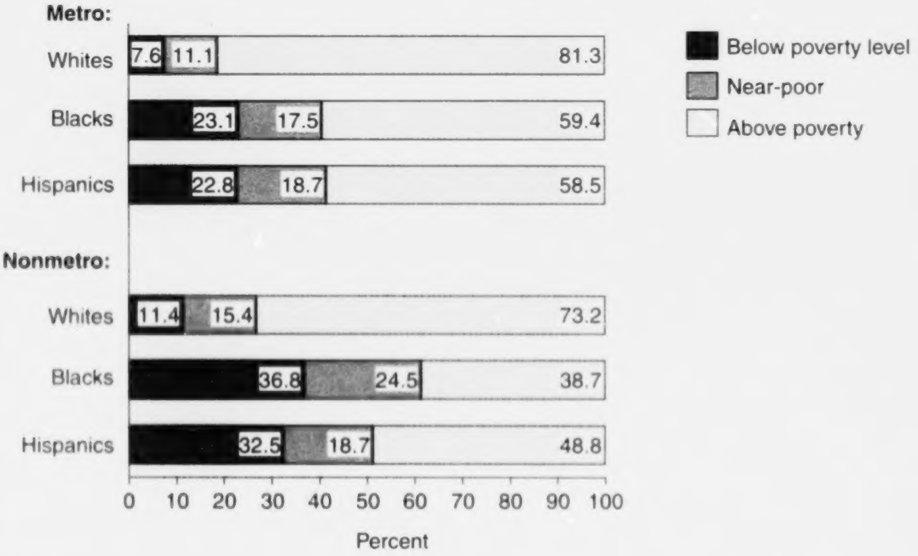
A higher proportion of the nonmetro than metro elderly population is age 75 years or older, and older age among the 60-and-older population is associated with a higher likelihood of being poor. Among nonmetro elders age 60 to 74, 11 percent were poor—9 percent of Whites, 33 percent of Blacks, and 31 percent of Hispanics. At ages 75 and older, 18 percent were poor—17 percent of Whites, 45 percent of Blacks, and 37 percent of Hispanics.

Poverty rates for older women are higher than those for men. While 10 percent of nonmetro men age 60 and older were poor, 16 percent of women were poor—14 percent of Whites, 40 percent of Blacks, and 34 percent of Hispanics. Of the poor population age 60 and older, over two-thirds were women, nearly half of the poor were widows, and about two-thirds lived alone. The elderly poor have less access to support services, good housing, adequate nutrition, and transportation, and are apt to be less healthy than their wealthier counterparts.

Figure 5

Poverty status of older persons, by race/ethnicity and residence, 1996

A larger proportion of minority elders are poor or near-poor, especially in nonmetro areas



Source: 1997 March Current Population Survey (CPS) data file.

Tomorrow's Elderly Will Differ From Today's

No matter what race-ethnic group, it is very different to be part of a healthy older married couple with Social Security and a work-related pension than to be 85, widowed, and living alone with chronic health problems and minimum Social Security income. The lifetime experiences in employment and earnings of older Whites differ from those of Black and Hispanic elders. This generally means fewer resources at retirement age for Blacks and Hispanics. Hence, some elderly are economically secure, while others, especially the oldest old, those living alone, Blacks, and Hispanics, have relatively high poverty levels.

The elderly of tomorrow will have characteristics different from today's elderly, and such differences will ultimately affect their health and economic status. Minority elderly will differ in many ways from today's minority elderly. For example, young minorities are more likely to be employed in occupations covered by retirement plans than their parents were and more have attended college, leading to a better financial position in their retirement years.

The older population is widely distributed throughout the country, although nonmetro areas generally have higher proportions of the population age 60 and older. Issues such as access to medical and social services are more critical for the nonmetro elderly due to the lesser availability of such services in low-density areas. Because of the diversity in the nonmetro population and differing patterns of growth in the nonmetro elderly, local communities will need to adopt different strategies and policies to meet the needs of the elderly. New social and policy challenges for an aging population lie ahead.

The future size and composition of the older population is of fundamental importance for planning budget outlays for federally sponsored health and pension programs. Many questions lie ahead, such as whether more elderly will be at risk of extended years of disability or whether the age of onset of chronic conditions will be postponed. Is there a greater role for educating the public about long-term physical and economic effects of lifestyle in the younger years? Who will care for the physically and economically dependent aged? And will old age care programs take into account cultural differences? These are but a few of the questions an aging society must address. *[Carolyn C. Rogers, 202-694-5436, crogers@econ.ag.gov]*

Nonmetro Employment Growth Slows, but Unemployment Continues to Fall

Nonmetro employment continued to expand through 1997. During the early 1990's, nonmetro employment growth outpaced metro growth, but in the past 3 years, the employment growth rate in nonmetro areas has run behind the metro rate. Unemployment rates have continued to fall in both nonmetro and metro areas over the past several years. In nonmetro areas, employment growth rates in Black counties have generally been below those in low minority counties in both the 1980's and 1990's, while Hispanic county growth has been similar to low minority county growth.

Nonmetro employment continued to expand during 1997, particularly during the last half of the year. Growth was particularly strong in the fourth quarter of 1997, but retreated during the first half of 1998. Between the second quarter of 1995 and the second quarter of 1998, the seasonally adjusted annualized employment growth rate in nonmetro areas has run behind the metro rate in 12 of 13 quarters. This is in sharp contrast to the first part of the 1990's, when nonmetro employment growth consistently outpaced metro growth (fig. 1).

This change reflects both an acceleration of metro growth and a slowdown of nonmetro growth. Between late 1990 and early 1995, metro employment growth averaged 0.9 percent per year, while nonmetro growth averaged 1.8 percent. However, over the past 13 quarters dating from April 1995 through June 1998, metro area growth has averaged 2.0 percent per year, while nonmetro growth has averaged just 1.0 percent.

This nonmetro slowdown has not been limited to a few regions, or to counties with particular locational or economic attributes (rural-urban continuum codes or county economic types), but has been very widespread (table 1). Further, an examination of national employment growth by industry does not show any recent bias toward accelerated growth in more metro-oriented industries. Thus, the data suggest a generalized shift in economic activity toward metro areas, rather than a change attributable to conditions in particular nonmetro areas or industries.

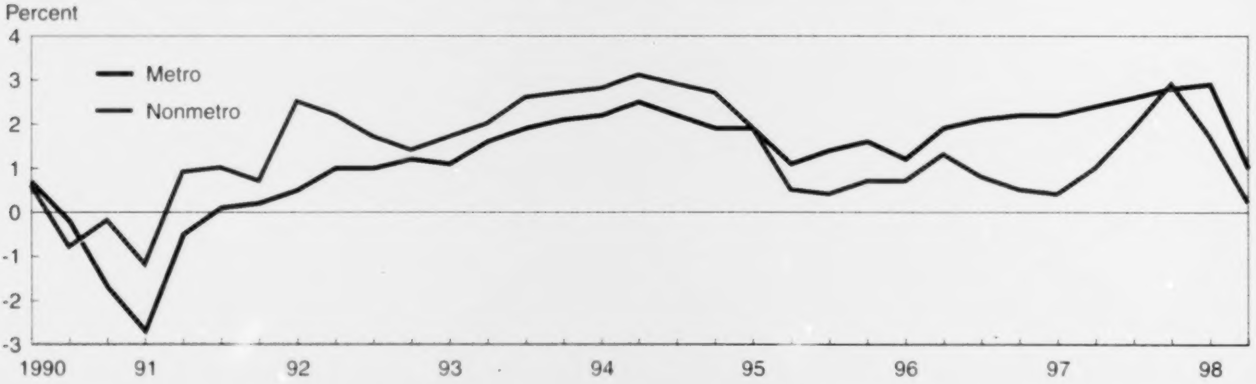
Nonmetro and Metro Unemployment Rates Continue to Fall

The slowdown in nonmetro employment growth has not led to a rise in unemployment, as might be expected. Rather, unemployment rates have continued to fall in both nonmetro and metro areas. The nonmetro rate fell from 5.9 percent in 1994 to 5.2 percent in 1997; by the first quarter of 1998, the seasonally adjusted nonmetro rate had fallen to 4.7 percent, the lowest level since 1973 (fig. 2). Similarly, the metro rate fell from 6.1 percent in 1994 to 4.9 percent in 1997, and to a seasonally adjusted rate of 4.3 percent in the second quarter of 1998, its lowest point during the 1973-98 period.

Figure 1

Employment growth, 1990-98

Metro employment growth has generally exceeded nonmetro since early 1995



Note: Rate shown is quarterly, seasonally adjusted annualized percentage employment growth, from second quarter 1990 through second quarter 1998.

Source: Calculated by ERS from Bureau of Labor Statistics' Local Area Unemployment Statistics.

Table 1

Employment growth in nonmetro areas: 1991-95 versus 1995-98

Employment growth in most nonmetro county types has slowed since 1995

Item	Annual rate of change: 2nd quarter 1991 to 2nd quarter 1995	Annual rate of change: 2nd quarter 1995 to 2nd quarter 1998	Difference
	Percent	Percent	Percentage point
U.S. total	1.5	1.8	0.3
Metro	1.4	2.0	.6
Nonmetro	2.0	1.0	-1.0
Region:			
Northeast	.4	1.0	.6
Midwest	2.2	.7	-1.5
South	2.0	1.0	-1.0
West	3.0	1.9	-1.1
Economic type:			
Agriculture	1.7	.8	-.9
Mining	.7	.9	.3
Manufacturing	2.0	.7	-1.3
Government	2.0	1.4	-.7
Services	2.4	1.5	-.9
Nonspecialized	2.2	1.0	-1.2
Retirement	3.0	2.2	-.8
Federal lands	3.1	1.8	-1.3
Commuting	2.3	1.5	
Persistent poverty	2.0	.6	-1.3
Transfers	2.1	.9	-1.2
Minority population:			
Substantially Black	1.4	.8	-.6
Predominantly Black	1.0	.2	-.7
Substantially Native American	2.6	1.0	-1.6
Predominantly Native American	3.8	-.4	-4.2
Substantially Hispanic	1.0	2.1	1.1
Predominantly Hispanic	2.3	.8	-1.5
Low minority	2.1	1.1	-1.0
Rural-urban continuum code:			
Urban adjacent	1.7	1.2	-.5
Urban nonadjacent	2.0	1.2	-.8
Less urban adjacent	2.2	1.1	-1.1
Less urban nonadjacent	2.1	.9	-1.2
Rural adjacent	2.3	1.0	-1.3
Rural nonadjacent	1.8	.6	-1.2

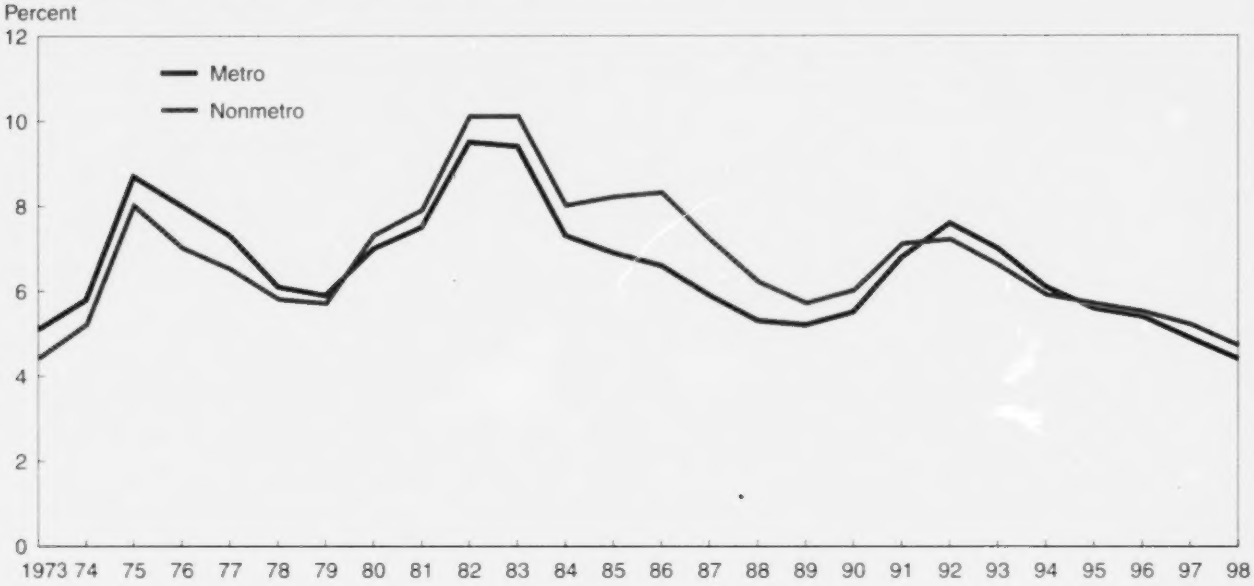
Note: Data by region, economic type, minority population, and rural-urban continuum code are for nonmetro areas only. See pp. 118-120 in the appendix for definitions of the county types (typology codes).

Source: Calculated by ERS from Bureau of Labor Statistics' Local Area Unemployment Statistics.

Figure 2

Metro and nonmetro unemployment rates, 1973-98

Metro and nonmetro unemployment rates have generally moved together



Note: 1973-97 values are annual averages and 1998 value is first half, seasonally adjusted.

Source: Current Population Survey, Bureau of the Census. 1998 seasonal adjustment calculated by ERS.

Slowing employment growth in nonmetro areas in conjunction with a continuing decline in unemployment is explained in part by declining rates of nonmetro labor force growth. Between 1990 and 1993, nonmetro labor force rose by 1.2 million. In contrast, nonmetro labor force rose by only 0.2 million between 1994 and 1997. Since the nonmetro labor force grew more slowly than nonmetro employment, nonmetro unemployment rates declined. Consistent with this, the population article in this issue finds that while nonmetro areas continued to experience net inmigration between 1995 and 1997, the rate of inmigration slowed from the early 1990's.

Employment Growth Remains Slow in Nonmetro Black Counties

This issue of *RCaT* emphasizes the economic experience of nonmetro counties with high concentrations of minorities as well as that of nonmetro minority groups. In this context, it is useful to look at the employment growth and unemployment experience of Black, Hispanic, and Native American counties in nonmetro areas.

Employment growth rates in Black counties have generally been below those in low minority counties in both the 1980's and 1990's. In nonmetro areas, the growth rate gap between Black and low-minority counties changed little from the 1980's to the 1990's—averaging about 0.7 percentage point annually in both periods. On the other hand, employment growth trends in nonmetro Hispanic counties have followed a different pattern, being more similar to growth rates in low-minority counties in both the 1980's and 1990's (table 2). Employment in Native American counties grew at nearly the same rate as in low minority counties during the 1980's, but a bit faster during the 1990's.

Low-Minority Counties Account for Most Employment and Unemployment in Nonmetro Areas

In nonmetro areas, Black counties represent the overwhelming share—about two-thirds—of the labor force and employment among minority counties; Hispanic and Native American counties account for the remaining third. Overall, minority counties account for only 11 percent of the labor force and employment in nonmetro counties. Unemployment levels are higher in minority counties; most Black and Native American counties in nonmetro areas, as well as nearly 40 percent of Hispanic counties, have unemployment rates at least 1.5 times the national average (table 3). As a result, minority counties account for 17 percent of overall nonmetro unemployment and 29 percent of nonmetro "location-specific unemployment" (those who are unemployed who would be employed if the county unemployment rate equaled the national average) (table 4). Average unemployment rates are higher in Hispanic than Black counties. However, the range of unemployment rates was also wider among Hispanic counties, and they are actually more likely than Black counties to have below-average unemployment rates (table 3; fig. 3).

Table 2

Change in nonmetro and metro employment, by minority county type, 1980-97

Employment growth in Black counties has lagged both nonmetro and metro growth rates

Period	1980-90	1990-97
	Annual percentage change	
U.S. total	1.8	1.3
Metro:		
Overall average	2.0	1.2
Nonmetro:		
Overall average	.9	1.4
Low minority	1.0	1.4
Black	.2	.7
Native American	.8	1.9
Hispanic	1.2	1.5
Difference from overall nonmetro average:		
Low minority	.1	.1
Black	-.7	-.7
Native American	-.1	.5
Hispanic	.3	.1

Source: Calculated by ERS from Bureau of Labor Statistics' Local Area Unemployment Statistics.

Table 3

Nonmetro high-unemployment counties, by minority status, 1997

About half of all nonmetro minority counties have unemployment rates more than 1.5 times the national average

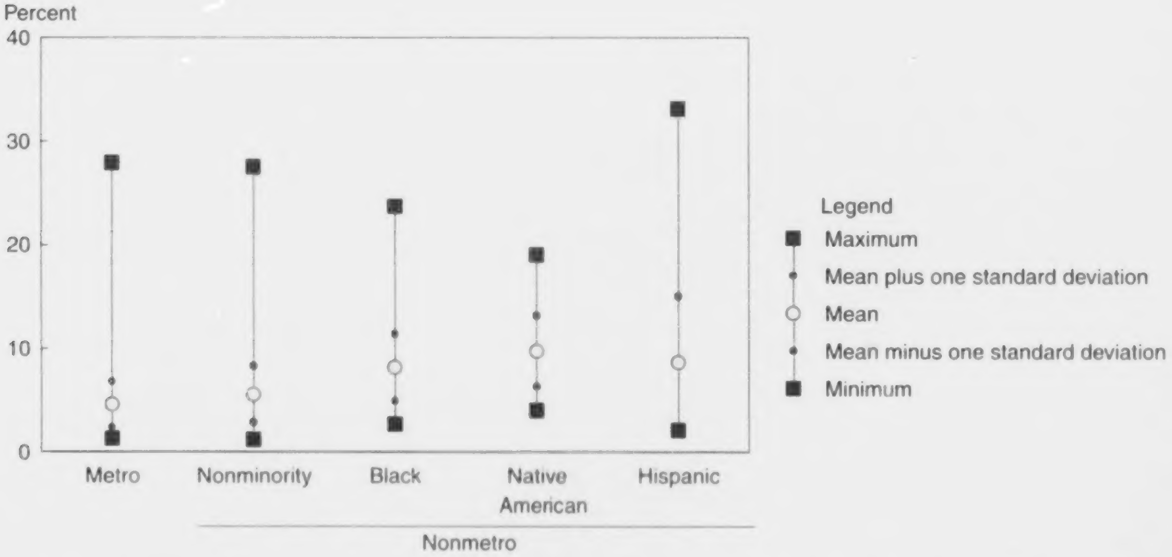
Unemployment rate	Low minority (N=1967)	Black (N=210)	Hispanic (N=88)	Native American (N=39)
	Percent of counties (number of counties)			
Above U.S. average	51.1 (1,005)	86.2 (181)	73.9 (65)	92.3 (36)
Above 1.5 x average	22.0 (432)	51.9 (109)	38.6 (34)	71.8 (28)

Source: Calculated by ERS from Bureau of Labor Statistics' Local Area Unemployment Statistics.

Figure 3

Ranges of unemployment rates among counties, by minority status, 1997

Nonmetro Hispanic counties have a much wider range of unemployment rates than Black or Native American counties do



Note: At least 70 percent of the counties in each group have unemployment rates within plus or minus one standard deviation of the mean. The mean minus one standard deviation point in the nonmetro Hispanic group is not shown because it is nearly the same as the actual minimum.

Source: Calculated by ERS using data from the Bureau of Labor Statistics.

Table 4

Nonmetro labor force statistics, by minority county type, 1997

Minority counties account for less than a third of the location-specific unemployed in nonmetro counties

Item	Low minority	Black	Hispanic	Native American	Total
	Number in thousands (percentage of total)				
Labor force	23,144 (88.9)	1,936 (7.4)	674 (2.6)	277 (1.1)	26,031 (100.0)
Employed	21,849 (89.3)	1,785 (7.3)	596 (2.4)	248 (1.0)	24,478 (100.0)
Unemployed	1,295 (83.4)	151 (9.7)	78 (5.0)	29 (1.9)	1,553 (100.0)
Location-specific unemployed[1]	288 (70.9)	58 (14.3)	45 (11.1)	15 (3.7)	406 (100.0)

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[1] Location-specific unemployment is a measure of the size of concentrations of unemployment above the national average rate. The number of location-specific unemployed in a county is defined by the number who are unemployed in that county who would be employed if the county unemployment rate equaled the national average. The number of location-specific unemployed is set at zero for all counties with an unemployment rate below the national average.

Source: Calculated by ERS from Bureau of Labor Statistics' Local Area Unemployment Statistics.

While reported rates of unemployment among Native Americans on some reservations range up to 50 percent, the overall unemployment rate for Native American counties is just above 10 percent and the highest for any of these counties is under 20 percent. Factors that explain this apparent discrepancy include low unemployment rates for nonminorities in many of these counties, lower labor force participation rates for Native Americans (meaning that even in counties where Native Americans are a majority of the population, they may not comprise a majority of the labor force), and considerable variability among counties in the Native American Indian unemployment rate. (Census data for 1990 show unemployment rates for Native Americans in some of these counties ranging from less than 10 percent to more than 40 percent).

In summary, unemployment in minority counties remains significantly elevated even in a period of low overall unemployment nationwide. At the same time, concentrations of unemployment in those counties make up only a modest percentage of all unemployment in nonmetro areas. *[Lorin Kusmin, 202-694-5429, lkusmin@econ.ag.gov]*

Manufacturing Sector in Black Counties Weakens in Era of New Technology

Manufacturing has historically been an important source of job growth in counties with high proportions of Blacks, but with new technology demanding more highly skilled workers, some manufacturers in these counties are having difficulty competing. Despite extensive government support, manufacturing has not expanded in predominantly Black counties in the 1990's.

This article is about jobs, particularly manufacturing jobs, in counties where Blacks are at least a third of the population. These counties are among the poorest in the Nation. Almost all of the counties where Blacks are the predominant racial group were classified as persistently poor by ERS (using 1990 Census data), and two-thirds of the substantially Black (one-third to one-half the population) counties were so classified. Moreover, predominantly Black counties have also been among the most dependent on transfer payments, which means that adjustment to welfare reform will be particularly difficult. One solution is to create more job opportunities. This article investigates what those opportunities may be, drawing from both county employment data and the ERS Rural Manufacturing Survey.

Local jobs provide only part of the picture, since many people may commute across county boundaries. But, particularly for low skill jobs, the county is the first place to look and, the more distant the job, the greater the cost in commuting time and expense. Moreover, local employers mean additional county property tax income, opportunities for entrepreneurship, and a more dynamic labor market, all important considerations in low-income counties.

Manufacturing Is Important in Nonmetro Black Counties, but the Pay Is Low

With the continued decline in opportunities in traditional resource-based industries—agriculture, forestry, and mining—rural areas have developed primarily from the expansion of adjacent urban agglomerations, amenity-based recreation and retirement industries, and the attraction and generation of low-tech manufacturing. Individual counties have also gained jobs through development of particular services—including prisons, casinos, data processing, and mail order companies.

Black counties, particularly predominantly Black counties, tend not to be high in natural amenities (as measured by climate, lake area, ocean frontage, and topography). In part, this reflects the historic location of plantation agriculture. Also, some once predominantly Black counties that are attractive to retirees and vacationers have gained substantial White populations. The best known example is probably Beaufort County, South Carolina, the site of Hilton Head Island. The county population was nearly three-quarters Black in 1930, but less than a third Black in 1990, despite a growth in the Black population over the period.

Apart from some of the counties near expanding metropolises, manufacturing has offered one of the better opportunities for job creation in Black counties. In 1995, manufacturing (and government) accounted for a higher percentage of jobs in Black counties than in other counties in the South, and these counties in turn had more manufacturing than nonmetro counties in other regions (table 1). About 45 percent of the substantially Black counties and 27 percent of predominant Black counties were "high-manufacturing" counties in 1995, with manufacturing comprising over a quarter of all jobs.

These employment data alone underestimate the importance of manufacturing in the rural economy. Manufacturing jobs are more likely to be full-time jobs than service sector jobs and tend to have higher wages. Thus, while manufacturing accounted for 21 percent of all jobs in predominantly Black counties in 1995, it accounted for 26 percent of total earnings.

But manufacturing jobs themselves are hardly an economic panacea for counties with high Black populations. The manufacturing jobs in these counties are low-wage jobs by national standards. According to the ERS Rural Manufacturing Survey (see box, p. 53), production worker hourly pay is about 25 percent lower in predominantly Black counties than in nonmetro counties with low proportions of Blacks, and 10 percent lower in substantially Black counties. At these wages, manufacturing does not provide a major boost

Table 1

Employment in nonmetro South, by proportion of the population Black

Counties with high proportions of Blacks rely more on manufacturing, but did gain manufacturing jobs during 1990-95

		South			
				Percent Black	
Industry	Non-South	Total	Low	Substantial	Predominant
			Percent		
Job distribution, 1995:					
Agriculture, forestry, fishing	9.0	8.6	8.8	6.8	9.6
Mining	1.1	1.7	2.0	.6	.7
Manufacturing	14.8	19.6	18.9	23.3	20.8
Private service sector	54.2	48.0	48.6	44.8	45.6
Government	15.7	16.7	16.1	19.5	19.6
Construction	5.3	5.4	5.6	5.0	3.7
All jobs	100.0	100.0	100.0	100.0	100.0
Change in number of jobs, 1990-95:					
Agriculture, forestry, fishing	-2.1	.1	.9	-2.0	-7.8
Mining	-12.1	-17.4	-17.5	-20.6	-2.2
Manufacturing	6.3	4.3	5.2	1.7	-1.7
Private service sector	11.9	13.0	13.1	12.4	12.3
Government	3.8	7.1	7.1	7.4	5.8
Construction	17.1	10.6	11.6	8.6	-4.8
All jobs	8.3	8.2	8.6	7.3	4.9

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

to family incomes. Thus, predominant Black counties were almost all "persistently poor" as of 1989, irrespective of the amount of manufacturing they had.

Manufacturing in predominantly Black counties is associated, however, with lower welfare dependence. Among these counties, 1995 per capita income support payments were 10 percent lower in high-manufacturing counties than in other counties. More to the point, in both substantially and predominantly Black counties, changes in manufacturing jobs during 1990-95 were inversely related to changes in income support payments over the same period. A gain (loss) in manufacturing jobs during1990-95 equal to 1 percent of total county employment was associated with a reduction (increase) in per capita income support payments of about 0.5 percent (constant dollars). This suggests that although manufacturing can at best be only part of the answer, the ability of these counties to adjust to welfare reform will depend partly on the strength of their manufacturing sectors. But the prognosis is not favorable.

Manufacturing Sector Weak in Black Counties During 1990-96 After Gains in Earlier Decades

Although manufacturing expanded in Black counties in the 1970's at a rate similar to those of other Southern nonmetro counties, and even expanded in predominantly Black counties over the 1980's, these counties have not shared in the rural manufacturing expansion of the 1990's (table 2). Counties with substantial Black populations had a slight loss in manufacturing jobs in 1990-96 and predominantly Black counties, a 5-percent loss. In contrast, manufacturing has increased in counties with low Black populations during the 1990's, especially outside of the South.

Table 2

Change in manufacturing and total jobs, by proportion of Blacks in county population

High Black counties have lost manufacturing jobs in 1990's in both metro and nonmetro areas

	Change in manufacturing jobs			Change in all jobs,
Type of county	1969-79	1979-90	1990-96	1990-96
		Percent		
Nonmetro:				
Nonsouth	13.5	-2.3	7.7	12.0
South	22.0	1.9	2.3	10.7
By proportion Black—				
Low	22.5	2.2	3.4	11.2
Substantial	20.8	-.4	-.7	9.2
Predominant	18.0	4.1	-5.0	6.3
Metro, by proportion Black—				
Low	4.2	-9.0	-3.6	9.7
Substantial	-17.9	-29.8	-7.8	3.4
Predominant	-16.3	-26.4	-14.7	-4.2

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Even with their low wages, the ability of communities in Black counties to attract and develop manufacturing may now be more limited than in the past. In previous decades, low wage labor was a major factor in the shift of manufacturing to the rural South and labor skills were not an issue. But the globalization of production and markets has eroded the regional low-wage advantage—many other countries, including Mexico, have considerably lower wages than found anywhere in the United States. Moreover, ERS Rural Manufacturing Survey results indicate that the current wave of technological innovation in U.S. manufacturing, spurred in part by international competition, is generally raising the skill levels required of production workers. (See R. Teixeira, *Rural and Urban Manufacturing Workers: Similar Problems, Similar Challenges*, AIB-736-02, U.S. Dept. Agr., Econ. Res. Serv., 1998.) Consistent with these results (and in contrast to the 1970's and 1980's), rural (and urban) areas with low education levels have generally not gained manufacturing jobs in the 1990's. Counties with high proportions of Blacks have high dropout rates (fig.1). In both substantially and predominantly Black counties (as in nonmetro counties in general), manufacturing grew in 1990-96 only where the high school dropout rates for young adults (ages 25-44) were under 25 percent. Currently, local human resources, rather than low wages, appear to be key to rural manufacturing competitiveness.

Manufacturers in Black Counties Report Major Problems with Local Human Resources

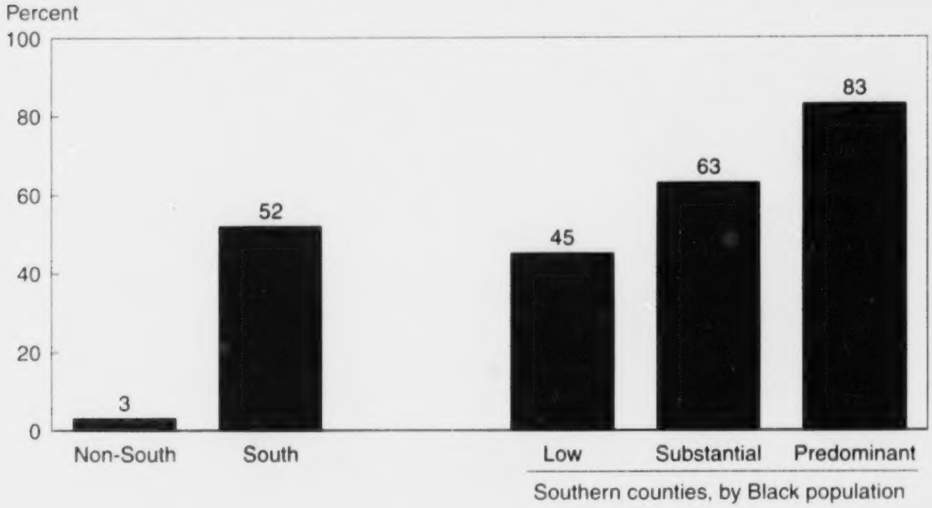
The most direct way to identify local obstacles for manufacturers is to ask the manufacturers themselves. As part of the ERS Rural Manufacturing Survey, manufacturers were asked which of a list of 21 local factors were problems for their establishments' ability to compete. Human resources factors were paramount in the rural Black counties and generally cited much more often than in other nonmetro counties (table 3).

The most cited problem in predominantly Black counties was the quality of local schools; nearly half the respondents reported this as a major problem. In contrast, only 8 percent of the manufacturers in counties with low Black populations cited schools as a major problem. This problem is related to some extent with another major problem in Black counties—the ability to attract managers and professionals—as schools are a major factor in the residential quality of life. But the school quality issue also relates to the problems of finding people with basic skills to do production work. One in every five manufacturers in predominantly

Figure 1

Proportion of nonmetro counties in which over 25 percent of young adults (ages 25-44) lacked a high school diploma, 1990

Southern counties, particularly those with high proportions of Blacks, are often low-education counties



Source: Calculated by ERS using data from the 1990 Census of Population.

Table 3

Local factors reported by manufacturers as major problems for their plant's ability to compete

Quality of local schools cited as major problem by nearly half in predominantly Black counties

Local factor	Non-South	South, by Black Population: Low	Substantial	Predominant	Total
			Percent		
Quality of local schools	7.6	8.4	25.7	45.4	10.2
Quality of available labor	33.9	34.1	36.4	36.0	34.3
Attractiveness of area to managers and professionals	14.2	14.1	20.3	30.5	14.8
Access to training	8.9	8.6	9.0	20.8	8.9
Access to financial institutions[1]	5.9	5.4	2.8	15.9	5.5
			Number		
Cases	1,666	903	152	63	2,784

[1] Excludes branch plants.

Note: Except for the labor quality measure, differences are significant at least at the 0.05 level. Chi-square tests across categories were used except for access to financial institutions, where Fisher's Exact Test was to test the predominant Black category responses against the remainder.

Source: ERS Rural Manufacturing Survey.

680

Black counties cites lack of access to training as a major problem. Except for the training issue, where they are similar to the general rural average, manufacturers in substantially Black counties fall between the low and predominantly Black counties in their answers. Although the number of manufacturers interviewed in the predominantly Black counties was small, these differences are statistically highly significant ($p<0.001$).

The quality of available labor was reported as a major problem by over a third of the Black county manufacturers, but unlike the other human resource issues, this was about as likely to be reported as a major problem in other rural areas. Other analysis has shown that responses to this question are highly sensitive to the technologies used, the wages paid, and adjacency to metro areas. Manufacturers in counties with 25 percent more of the population Black, particularly those using advanced technologies, were shown to cite this problem much more often than expected on the basis of their plant characteristics and other county attributes. (D. A. McGranahan, *Local Problems Facing Manufacturers*, AIB-73-03, U.S. Dept. Agr., Econ. Res. Serv., 1998.)

Other differences in problems cited between manufacturers in Black and non-Black counties tended to be relatively small. About 20 percent in Black counties reported State and local taxes and environmental regulations to be major problems, but this proportion is about the same in other counties. No other local factors were cited as major problems by more than 15 percent of the manufacturers, with the exception of access to financial institutions, which was cited by 16 percent of the local manufacturers in predominantly Black counties, but seldom reported elsewhere. Since this question was not relevant to branch plants, the number of cases involved is really too small to more than signal a potential issue.

One additional reason for the lack of manufacturing growth in Black counties, particularly predominantly Black counties, could be a lack of government support, since these counties generally have fairly weak infrastructures. However, the results of the ERS Rural Manufacturing Survey suggest that manufacturing establishments in predominant Black counties receive extraordinary support, far more than manufacturers in other locations (table 4). Mississippi stands out in this regard, with manufacturers in its predominantly Black counties reporting assistance in industrial parks, tax breaks, and training significantly more often than manufacturers in other predominantly Black counties. Manufacturers in substantially Black counties have received about the same amount of support as manufacturers elsewhere, suggesting that assistance has been targeted to the majority Black counties.

Table 4

Nonmetro manufacturers reporting participation in government programs in past 3 years as very or somewhat important for business operations

Manufacturers in majority Black counties receive extensive support

		South, by Black Population			
Program type	Non-South	Low	Substantial	Predominant	Total
			Percent		
Credit	25.6	19.7	16.0	31.7	23.3
Industrial parks	19.9	21.3	19.5	41.7	20.8
Tax breaks	47.0	43.5	48.6	68.9	46.5
Training	29.1	28.0	28.5	46.8	29.1
			Number		
Cases	1,634	880	151	62	2,727

Source: ERS Rural Manufacturing Survey.

The ERS Rural Manufacturing Survey

In 1996 the Economic Research Service, in cooperation with the Social and Economic Sciences Research Center at Washington State University, conducted telephone interviews with a nationwide sample of rural and urban manufacturing businesses with at least 10 employees. Interviews with 2,844 nonmetro and 1,065 metro establishments were completed, for a 70-percent response rate. Nonmetro and large establishments were oversampled in the survey design. Statistics were weighted to account for this stratification.

The goal of the survey was to investigate issues of rural manufacturing competitiveness and enhance the targeting of rural development programs at national, State, and local levels. To that end, the survey instrument asked about a range of issues, including worker characteristics, technology use, marketing assistance, worker skills and training, locational barriers to competitiveness, and sources of financing.

Services in Predominantly Black Counties Grew for Unexpected Reasons

One last question remains. Given that agriculture as well as manufacturing jobs declined over the 1990-95 period, what explains the 12-percent growth in service sector jobs in predominantly Black counties? A large part of the answer is found in a single predominant Black county—Tunica County, Mississippi. The development of a casino complex in Tunica generated over 9,000 service sector jobs in the county between 1990 and 1995, tripling total employment. (I am grateful to Calvin Beale for providing this explanation.) Exclusive of this county, service sector jobs in predominant Black counties increased by only 8 percent, 4 percentage points lower than reported in table 1. Similarly, total employment growth in predominant Black counties was only 3 percent outside of Tunica, compared with 5 percent including Tunica.

More generally, a rise in transfer payments appears to have contributed to employment growth in the region, particularly in predominant Black counties. Led by increases in Medicare and Medicaid, transfer payments rose (in constant dollars) by about 30 percent in Southern nonmetro counties during 1990-95, independent of the proportion Black. In 1995, these payments equaled 39 percent of total earnings in the nonmetro South, except in predominant Black counties, where they equaled 48 percent. Thus, in the predominant Black counties, the rise in transfer payments was equivalent to a gain in total earnings of about 15 percent—a very large amount in only 5 years. The actual local impact was probably lower than an equivalent gain in earnings, since a substantial portion of the medical payments undoubtedly went to service providers located outside of these counties. Nevertheless, this is a large enough increase to generate some of the new service sector jobs. To some extent, then, changes in manufacturing jobs may have been offset by changes in transfer payments in their effects on local economies.

The Outlook for Black Counties Is Uncertain

The present analysis has focused on the 1990-96 period, and elsewhere in this issue is evidence that growth in rural areas of the country has slowed since 1995. While drawing any conclusions based on 1 year is always risky, the data for 1995-96 indicate that the downturn in manufacturing in Black counties may be accelerating. For instance, predominant Black counties lost 4 percent of their manufacturing jobs in 1995-96 alone, and although their total jobs continued to increase, the gain was only 0.3 percent.

The trends for rural Black counties would be less unsettling if opportunities in urban Black counties were improving, but they have had a history of manufacturing decline and total employment has grown only slowly (table 2). In metro Black counties, employment gains during 1990-96 was even lower than in their nonmetro counterparts. In 1995-96, metro predominantly Black counties lost jobs and substantially Black counties gained only in the South. Metro Black counties are not alternative places to find work for Blacks (or others) currently residing in rural Black counties. To the extent that good job opportunities for Black workers exist, they are outside these areas.

Rural Black counties have been able to rely in the past on low wages to attract manufacturing. This avenue appears less viable in the 1990's, despite extensive government assistance, especially in predominantly Black counties. In any case, manufacturing has not provided sufficient incomes to lift their populations out of poverty. The skill demands of new manufacturing technology have generally increased. Despite their relatively low use of new technology, nearly half the manufacturers in predominantly Black counties see the local school systems as major problems for their competitiveness. Poor school systems make it difficult both to find adequately skilled workers and to attract managers and professionals to the area. Whether the economies of these counties are currently viable without a major effort in improving education and training is, thus, a real concern. For counties dependent on manufacturing, local economic planning and outside government assistance cannot be lastingly effective without involving training institutions and local school systems. *[David A. McGranahan, 202-694-5356, dmcg@econ.ag.gov]*

Rural Nonfarm Earnings Growth Lags Urban

During 1996, rural real earnings per nonfarm job grew more slowly than urban earnings. Earnings per job grew slightly faster in Black rural counties, but those and other minority counties still have jobs that average lower earnings than all rural jobs.

Rural real earnings per nonfarm job rose by a slight 0.1 percent during 1996, from $22,465 in 1995 to $22,492 in 1996 (fig. 1). Urban real earnings per nonfarm job increased at a faster pace (0.7 percent), rising from $31,480 in 1995 to $31,717 in 1996. Since 1990, earnings per nonfarm job have fallen less or increased more in rural than in urban areas in only 2 years, 1993 and 1994 (see app. table 8). The wide rural-urban earnings gap persists and widened slightly during the 1990's. In 1989, rural earnings per nonfarm job were 73.8 percent of urban earnings. By 1996, that ratio had fallen to 70.9 percent.

Rural Earnings Lag Urban in All Nonfarm Industries

The rural-urban gap in earnings per nonfarm job exists in all industry sectors (table 1). During the 1990's, the gap widened sharply in mining, transportation and public utilities, and finance, insurance, and real estate. The gap has been and remains largest in the finance, insurance, and real estate industry. Rural earnings were only 54.3 percent of urban earnings in this industry in 1989 and fell to 47.6 percent of urban earnings by 1996. Rural jobs in this industry are more often part time and in lower paying administrative support and clerical occupations while urban jobs in this industry are more often full time and in higher paying executive and technical occupations.

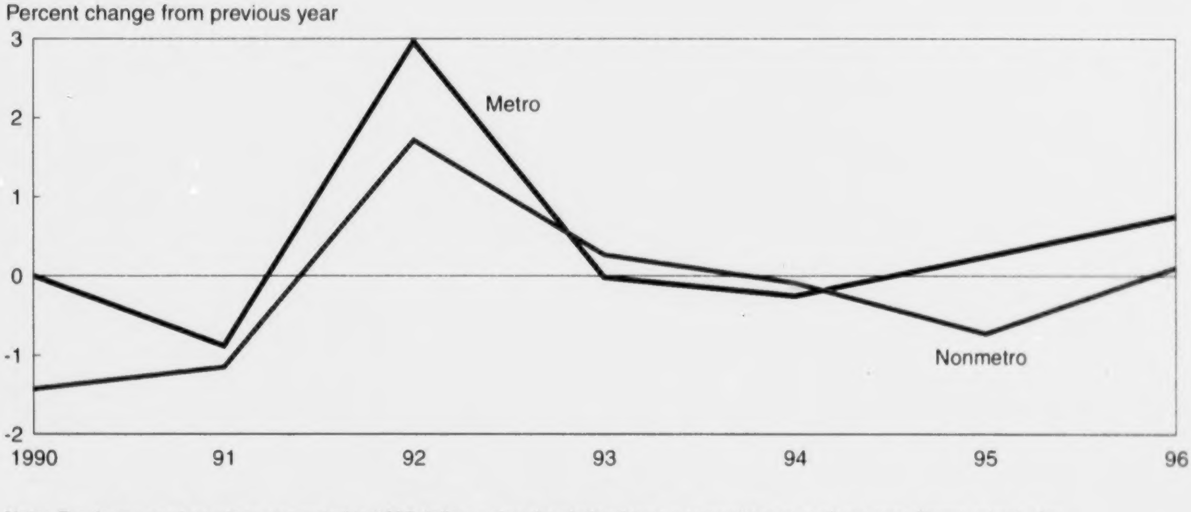
Earnings per Nonfarm Job Increased More in Black Counties

During the 1990's, real earnings per nonfarm job grew more in Black rural counties than earnings did in other types of nonmetro counties. From 1989, the last year of growth before the 1990-91 recession, to 1991, earnings per job fell at an annual rate of 1 percent in Black counties, a slower rate of decline than in all rural counties (table 2). From 1991 to 1996, earnings per nonfarm job increased by 0.6 percent annually in Black counties, twice the rate of increase in all nonmetro counties. And, in the most recent year, 1995-96, earnings growth in Black counties slowed to 0.2 percent, still twice the also-slowed

Figure 1

Annual change in real earnings per nonfarm job, 1989-96

Nonmetro earnings per job have grown more slowly or fallen farther than metro earnings in 5 of the last 7 years



Note: Previous years' earnings converted to 1996 dollars using the chained-type personal consumption expenditures price index.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Table 1

Nonmetro real earnings per nonfarm job, by industry, 1989 and 1996

Nonmetro earnings trail metro earnings in all nonfarm industries, and most gaps widened during the 1990's

Industry	1989		1996	
	Earnings per job	Ratio to metro earnings	Earnings per job	Ratio to metro earnings
	1996 dollars	Percent	Dollars	Percent
Nonmetro nonfarm	22,782	73.8	22,492	70.9
Forestry, fishing, and other[1]	15,642	86.0	13,622	81.6
Mining	36,649	92.5	38,062	78.2
Construction	26,587	73.8	24,446	74.0
Manufacturing	30,397	70.3	31,176	67.6
Transportation and public utilities	35,607	82.6	34,210	77.3
Wholesale trade	26,952	66.2	27,581	65.0
Retail trade	14,331	81.2	13,376	79.7
Finance, insurance, and real estate	14,872	54.3	16,854	47.6
Services	18,231	64.1	18,602	64.0
Government	24,731	77.9	25,719	76.8

[1] Other is employees of foreign embassies working in the United States.

Note: Earnings and jobs in any industries other than government are suppressed in counties with few jobs in that industry or where a dominant employer accounts for a high share of the jobs in the industry. This suppression affects the calculation of earnings per job in both metro and nonmetro areas, causing the estimates shown here to vary somewhat from the true estimates that would be calculated if no county information were suppressed.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

rate of increase in all nonmetro counties. The gap between real earnings per nonfarm job in Black and all rural counties shrank from $902 in 1989 to $333 in 1996.

Native American counties had higher earnings per nonfarm job than did all nonmetro counties. High earnings of jobs in Alaska, where several of the Native American counties are located, accounted for the group's earnings exceeding all nonmetro counties' average earnings. Excluding the Alaska counties, the remaining Native American counties averaged slightly lower earnings than did all nonmetro counties.

Native American and Hispanic counties did not experience earnings trends like the rest of the country during the 1990's. Earnings per nonfarm job increased slightly in Hispanic counties during the 1990-91 recession, while earnings were falling elsewhere. Both Native American and Hispanic counties have averaged annual declines in earnings during the 1991-96 recovery and growth period for the national economy. In the most recent year, 1995-96, Hispanic counties had slight growth in earnings, but Native American counties had the same rate of earnings decline as they have averaged since the recession.

According to ERS' typology of nonmetro county types, many Black counties' economies depend on manufacturing for a large share of earnings and many of them have at least 40 percent of their workers commuting to jobs in other counties. According to ERS' urban influence codes, over half of Black counties are adjacent to metro areas, mostly small metro areas of fewer than 1 million residents. In contrast, many Native American counties depend on farming or government for a large share of earnings, none of them has high commuting, and most of them are remote from metro areas. Many Hispanic counties depend on farming or mining or government for a large share of earnings, few have high commuting, and over half of them are remote from metro areas. With so many Black county economies linked to the recession- and recovery-sensitive manufacturing industry

Table 2

Real earnings per nonfarm job, by place of work, selected years

Earnings per job in Black nonmetro counties improved relative to earnings in other nonmetro areas during the 1990's, but all types of nonmetro counties fell farther behind metro areas

Place of work	1989	1991	1996
		1996 dollars	
Nonmetro	22,782	22,204	22,492
Black	21,880	21,457	22,159
Native American	24,888	24,724	24,014
Hispanic	21,401	21,424	21,311
Metro	30,856	30,584	31,717
United States	29,517	29,175	30,135
		Average annual change	
	1989-91	1991-96	1995-96
		Percent	
Nonmetro	-1.3	0.3	.1
Black	-1.0	.6	.2
Native American	-.3	-.6	-.6
Hispanic	.1	-.1	-.1
Metro	-.4	.7	.8
United States	-.6	.6	.7
		Ratio of earnings to metro earnings	
	1989	1991	1996
		Percent	
Nonmetro	73.8	72.6	70.9
Black	70.9	70.2	69.9
Native American	80.7	80.8	75.7
Hispanic	69.4	70.0	67.2

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

and to metro area jobs, it is not surprising that their earnings behave like all nonmetro and national earnings. Native American and Hispanic county economies are more often tied to countercyclical or recession-neutral industries and have less access to metro area jobs, helping to explain why their earnings do not follow national trends.

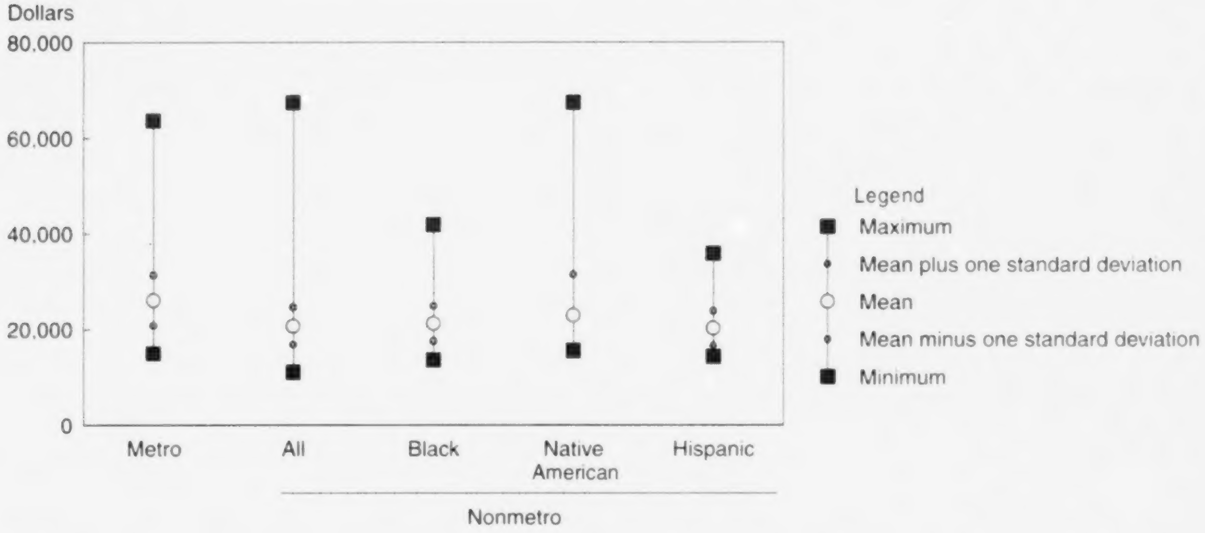
Earnings per Job Vary Less Among Black and Hispanic Counties

Earnings per job discussed so far represent the sum of earnings in the group of counties divided by all jobs in the group of counties. That statistic represents the status of each group, but individual counties in any group may have earnings that differ greatly from the group's average earnings. Figure 2 shows the ranges of earnings per job among counties in each group. Black and Hispanic rural counties have much smaller ranges of earnings than the other groups. As mentioned above, Native American counties include several

Figure 2

Ranges of earnings per nonfarm job among counties, by racial/ethnic status, 1996

Nonmetro Native American counties have a much wider range of earnings than Black or Hispanic counties do because several Alaskan counties with high proportions of Eskimo and Aleut residents have some very high-paying jobs



Note: At least three-quarters of the counties in each group have earnings per nonfarm job within plus or minus one standard deviation of the mean. The mean minus one standard deviation point in the nonmetro Native American group is not shown because it is below the actual minimum.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

very high earnings counties in Alaska. They are the counties with the highest earnings per nonfarm job in the Nation, so they put the maximum earnings for nonmetro and Native American counties higher than the maximum earnings for metro counties. All groups of counties have high outliers that put the maximum well above the mean. At least three-quarters of the counties in each group have earnings within plus or minus one standard deviation of the mean, showing that the average earnings of the group is representative of the earnings status of most counties in the group.

Another way to investigate the diversity in earnings among the minority counties is to look at trends for the subgroups of counties, substantial and predominant, within each minority group. The subgroups' earnings are shown in appendix table 9 (see p. 129). In 1996, the predominantly Black and Hispanic counties had lower earnings per nonfarm job than the substantially Black and Hispanic counties. In contrast, the predominantly Native American counties had higher earnings per job than the substantially Native American counties. Again, the Alaska counties account for this difference. During the 1990's, real earnings per job have grown more in the predominantly Black counties than in any other of the county groups. The ratio of the predominantly Black counties' earnings to metro earnings improved from 68.7 percent in 1989 to 69.0 percent in 1996. That is a little improvement, but all other minority subgroups and rural areas overall lost relative to metro earnings.

Although many of the trends in minority counties' earnings have been positive, these trends represent what has happened to the earnings of all jobs in the counties, not only those held by minorities. The article on earnings of rural minority workers (see pp. 59-62), however, also finds that rural Blacks' weekly earnings are growing faster than other rural workers' earnings, suggesting that they have probably benefited from earnings growth in the areas where they comprise a large portion of the population. *[Linda M. Ghelfi, 202-694-5437, lghelfi@econ.ag.gov]*

Rural Earnings Continue a Slow, Steady Rise

Rural earnings rose slightly between 1996 and 1997. Earnings growth was high for rural Blacks and Hispanics, but their earnings levels remained well below that of non-Hispanic Whites. Regardless of race, women accounted for most of the overall gains in rural earnings during the 1990's.

Average weekly earnings for rural workers rose 1.4 percent between 1996 and 1997 after adjusting for inflation, reflecting the benefits of steady productivity growth and very low inflation rates. The gain, from $430 to $436, is the largest annual increase since the 1990-91 recession. Rural earnings growth continues a national trend of rising real earnings in both metro and nonmetro labor markets that began earlier in the decade, and parallels improvement in other measures of workforce well being, such as declines in unemployment rates.

Sustained economic growth has meant that some groups who historically have not participated fully in the upswings of the business cycle are now seeing increases in earnings as great as or greater than the average. This is true for rural Blacks, whose average weekly earnings increased 2.4 percent between 1996 and 1997, and 5.6 percent since 1990. Nonetheless, the earnings differences between minorities and Whites within the rural labor force remain quite large and are only slightly smaller than they were two decades ago.

Meanwhile, the gap between urban and rural earnings of racial and ethnic minorities has narrowed significantly, and is particularly noticeable for Hispanic workers, whose urban earnings have been flat in the 1990's. For all racial/ethnic groups, the rise in women's average earnings is the prime component of recent real earnings increases in rural labor markets.

The data for this article come from the Current Population Survey (CPS). All earnings figures are reported in 1997 dollars using the Consumer Price Index for urban wage earners to adjust for inflation. The reader is cautioned that this article does not report the two measures underlying average weekly earnings, average hourly earnings and average weekly hours, due to changes in 1994 in the way that hours are reported in the CPS.

Rural Minorities' Earnings Growth Exceeds Non-Hispanic Whites' in the 1990's...

Average weekly earnings rose slightly faster for rural Black and Hispanic workers than for rural Whites between 1990 and 1997 (table 1). The highest increase was for Blacks, whose earnings grew by 2.4 percent between 1996 and 1997 and by 5.6 percent since

Table 1

Average weekly earnings of rural wage and salary workers

During the 1990's, average weekly earnings increased at a higher rate for Blacks

	Earnings			Change	
Item	1990	1996	1997	1990-97	1996-97
	1997 dollars			Percent	
All workers	422	430	436	3.3	1.4
Black	321	331	339	5.6	2.4
Hispanic	327	341	340	4.0	-.3
White	435	439	445	2.3	1.4

Note: Hispanics may be of any race. "Black" and "White" exclude Hispanics.

Source: Calculated by ERS using data from the Current Population Survey.

1990. The picture for rural Hispanics is less clear; earnings have risen 4 percent from the beginning of the decade, but were stagnant between 1996 and 1997.

The relatively strong performance of rural Black earnings reflects their geographic concentration in the South. During the 1990's, rural average weekly earnings grew fastest in the South (up 5.3 percent to $428 in 1997), followed by the Midwest (up 4.3 percent to $432), and the West (up 0.5 percent to $449), while rural earnings fell slightly in the Northeast (down 1.5 percent to $464).

Also, the recent increases in the minimum wage in September 1996 (to $4.75 per hour) and October 1997 (to $5.15 per hour) have helped boost weekly earnings for all low-wage workers, who are disproportionately Black. Before the wage increases took effect, about 20.2 percent of rural Blacks and 7.5 percent of Hispanics were earning between $4.25-$5.14 per hour—the wage group most likely to be affected.

The lower earnings growth for rural Hispanics, compared with Blacks, is likely an outcome of several factors. Hispanic workers are more likely than Blacks to work in farming occupations that are not covered under minimum-wage laws. Moreover, nearly 4 in 10 rural Hispanics live in the West, where steady growth in the services sector has generated plentiful, but often low-paying jobs.

...but Their Earnings Levels Remain Much Lower

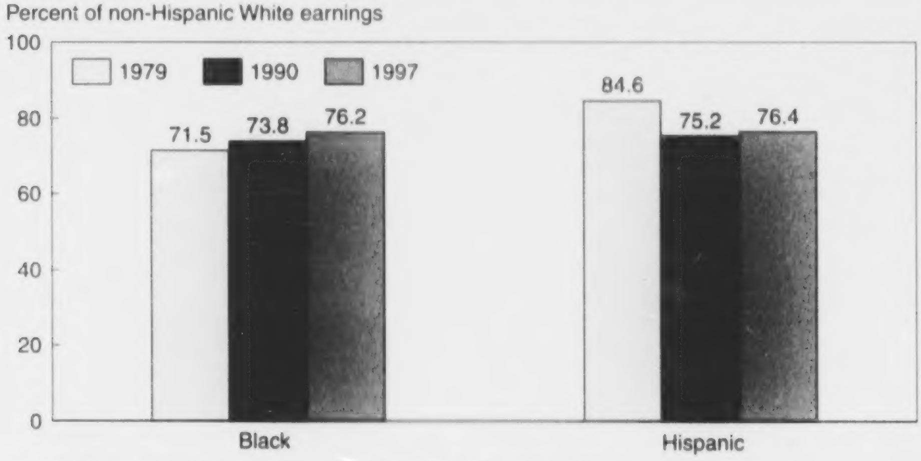
Despite solid gains during the 1990's, Black and Hispanic workers' average earnings remained well below White earnings. The legacy of racial discrimination in both schools and the workplace continues to mark the structure of earnings in rural America. In 1997, rural Blacks earned just 76.2 percent as much as Whites on average; Hispanics earned 76.4 percent as much (fig.1). And while the gap has closed slightly for Blacks in the 1990's, it remains only marginally smaller than in 1979, when their earnings relative to Whites were 71.4 percent. For rural Hispanics, the gap has actually increased since 1979 when Hispanics earned 84.7 percent as much as Whites. An increase in immigration of poor Hispanics from developing counties has pushed down their average weekly earnings.

One explanation of the persistent disparity in earnings is the lower rate of high school and (especially) college completion among Black and Hispanic workers. Even if minority

Figure 1

Ratio of nonmetro Black and Hispanic earnings to White earnings, 1979-97

Black earnings have increased while Hispanic earnings have fallen compared with White earnings



Source: Calculated by ERS using data from the 1979, 1990, and 1997 Current Population Survey.

workers had the same levels of education as White workers, however, much of the earnings gap would remain, since minorities typically earn less than Whites with the same amount of education.

Rural Earnings Grow Faster than Urban Earnings for All Groups

Rural and urban average weekly earnings grew at about the same rate between 1996 and 1997 (1.4 percent rural and 1.5 percent urban). Since 1990, however, rural earnings have outpaced urban earnings, due largely to the sluggish urban recovery in the early 1990's. The rural advantage has been especially strong for Blacks and Hispanics, whose average weekly earnings have grown at several times the rate for similar urban workers (tables 1 and 2).

Increasing average education levels and occupational status are not the primary explanations for faster rural earnings growth, since education and occupational upgrading have occurred at least as quickly in urban labor markets. Rather, rural earnings appear to be growing faster than urban earnings at any given level of education or occupation. The exception to this observation may be the sizable divergence in earnings for rural and urban Hispanics, which was accompanied by a drop in the share of urban Hispanics employed in manufacturing and an increase in the supply of less-skilled workers in cities where Hispanics are prevalent.

Earnings Increases Are Larger for Women

Real weekly average earnings rose 8.5 percent for rural women between 1990 and 1997, up from $321 to $348. In contrast, real weekly average earnings for men rose by less than 1 percent in the same period, up from $513 to $518, but remained at a much higher level than for women. Much of this increase in women's weekly earnings is due to the changing nature of the job market for women. Between 1990 and 1997, the labor force participation rate for rural women increased from 53.8 percent to 57.5 percent, but dropped slightly for rural men (from 72.9 percent to 72.2 percent). Associated with this labor force influx is women's rapid movement into higher status occupations. Rural women on average now have higher education levels than rural men, allowing women to enter better initial jobs and to move up more quickly into higher paying positions.

Regardless of race, women accounted for most of the overall gains in rural average weekly earnings during the 1990's (fig. 2). The largest percentage increases among rural women were among Blacks and Hispanics. In rural areas, earnings increased by 10.7 percent for Black women, 10.7 percent for Hispanic women, and 8.8 percent for White women between 1990 and 1997. Despite the higher percentage increases in minority

Table 2

Average weekly earnings of rural and urban wage and salary workers

The ratio of rural to urban earnings has increased slightly during the 1990's

	Urban earnings		Change,	Rural-urban ratio	
Item	1990	1997	1990-97	1990	1997
	1997 dollars		Percent		
All workers	547	550	0.6	77	79
Black	439	443	.9	73	77
Hispanic	416	403	-3.1	79	84
White	579	566	-2.3	75	77

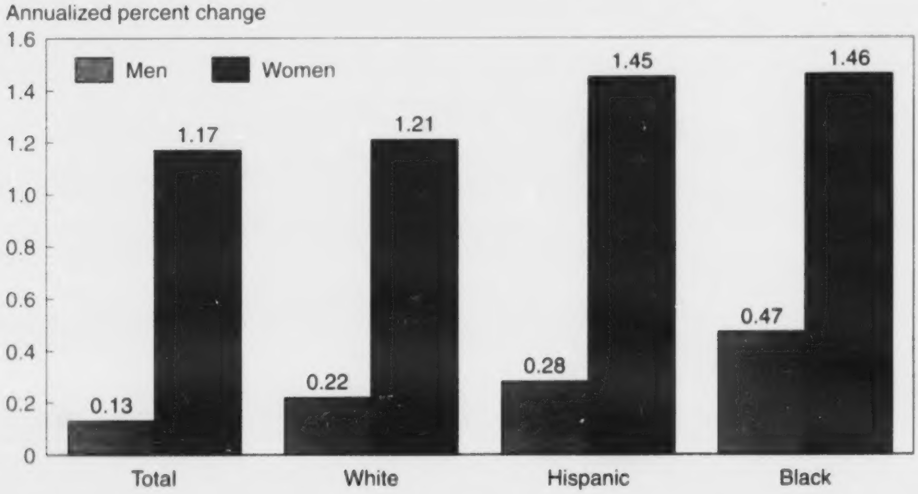
Note: Hispanics may be of any race. "Black" and "White" exclude Hispanics.

Source: Calculated by ERS using data from the Current Population Survey.

Figure 2

Change in average weekly earnings for rural men and women, 1990-97

Women's earnings growth outpaced men's across all racial and ethnic groups



Source: Calculated by ERS using data from the 1990 and 1997 Current Population Survey.

women's earnings during the 1990's, White women averaged $356 per week in 1997, compared with $300 for Blacks and $289 for Hispanics.

Prospects for Continued Earnings Growth

The prospects for continued improvement in average weekly earnings for rural minorities largely depend on sustained economic expansion. Racial and ethnic minorities have less seniority and human capital than White workers and are more likely to hold jobs that are sensitive to economic downturns, making them vulnerable to protracted layoffs during and after business recessions. Conversely, the very low unemployment rates that the Nation currently enjoys reflect tight labor markets in which employers must often offer higher wages to attract workers. Although wages are rising slowly compared with past periods of high productivity growth and low unemployment, these conditions create a floor that prevents the wage erosion that workers without college degrees have experienced over the previous 20 years.

An important but uncertain factor in minority workers' short-term earnings prospects is the effect of Federal welfare reform, which will increase the number of workers with limited job skills and education entering the labor force. The increased labor supply for low-skill jobs, disproportionately held by Blacks and Hispanics, is expected to slow earnings growth, just as concerns have been raised about the wage impacts of large influxes of immigrants in some local labor markets. There is no consensus about the magnitude of welfare reform effects, however, because of limited information about the number of recipients expected to enter the workforce and the rate of job creation over the next few years. The impacts are likely to be felt most keenly in local areas with slow employment growth and above-average use of social welfare programs—characteristics often associated with rural areas where minority populations are concentrated. *[Robert Gibbs, 202-694-5423, rgibbs@econ.ag.gov; Timothy S. Parker, 202-694-5435, tparker@econ.ag.gov]*

Rural Per Capita Income Grows Slightly Faster than Urban

During 1996, rural real per capita income increased slightly faster than urban income. Income in rural minority counties also increased, but per capita income in all types of rural areas continues to lag urban income.

According to the most recent estimates, real per capita income (in 1996 dollars) increased 2.4 percent, from $18,096 to $18,527, in rural areas during 1995-96. In urban areas, real per capita income increased by 2.1 percent, from $25,405 to $25,944. With rural income growing slightly faster than urban, the ratio of rural to urban income improved from 71.2 percent in 1995 to 71.4 percent in 1996.

Income is comprised of earnings, capital returns (dividends, interest, and net rent), and transfer payments. Rural per capita income grew faster than urban because rural earnings and transfer payments grew at faster rates than those components of urban income did. Per capita earnings and transfer payments grew by 2.5 and 2.1 percent in rural areas, compared with 2.1 and 1.7 percent in urban areas (table 1). Capital returns grew faster in urban than in rural areas, 2.9 versus 2.4 percent, but capital returns are a much smaller source of income than earnings and about the same size as transfer payments.

As discussed in the article on earnings per nonfarm job (pp. 55-58), earnings in most industries increased modestly during 1995-96, generally growing faster in urban than in rural areas. If nonfarm earnings per job and per capita earnings measured the same thing, we would have found that urban per capita earnings grew faster than rural. But earnings per job measure the average amount earned at the place of work, while per capita earnings measure the average amount of earnings of area residents, no matter where they earned their income. Increasing earnings per job does account for some of the increase in per capita earnings. Other contributing factors include faster job growth than population growth during 1995-96, which means that there were more earners relative to the population over which we divide earnings to obtain the per capita amounts. Farm earnings were much improved in 1996, compared with 1995, especially in rural areas, contributing to per capita earnings growth. And, more rural workers may have held jobs in urban areas in 1996 than in 1995. With the average earnings of urban jobs much higher than those of rural jobs, rural residents working in urban jobs probably bring home relatively high earnings. Those earnings from urban jobs are considered part of the total earnings of rural residents in the per capita earnings calculations. In sum, employment, population, and earnings growth and changes in commuting and industry of employment all play roles in per capita earnings and the faster rural than urban growth during 1995-96.

Rural Minority County Incomes Have Improved Since the Last Recession

Rural counties where minorities account for high proportions of residents are the special topic of this issue of *Rural Conditions and Trends.* Looking at the income status of Black, Native American, and Hispanic counties since 1989 shows what has happened to the economic status of those areas since the last year of growth before the 1990-91 recession. These per capita amounts reflect the average status of all residents of these areas, not just the minority residents.

Per capita income is much lower in rural minority counties than in all rural areas. In 1996, rural counties where one-third or more of the population is Black had per capita income of $16,489, Native American counties had per capita income of $13,843, and Hispanic counties had per capita income of $14,876 (table 1). While all three types of minority counties lag the rural average, the Black counties recently have had much more income growth than the other two types. Per capita income grew slightly in all three types of minority counties during the 1990-91 recession, while overall rural and urban per capita income declined. During the recovery and growth since the recession, income in rural Black counties grew faster than income in the other minority counties and overall income in rural and urban areas. Growth in earnings, capital returns, and transfer payments all contributed to the Black counties' income growth.

Table 1

Real per capita income, by source and place of residence, selected years

Earnings and capital returns recently grew more in nonmetro Black counties than in other nonmetro minority counties; transfer payments grew more in Native American counties

Income source and residence	1989	1991	1996	Annual average rate of change 1989-91	Annual average rate of change 1991-96	Annual average rate of change 1995-96
	1996 dollars			Percent		
Per capita income:						
Nonmetro	17,091	17,009	18,527	-0.2	1.7	2.4
Black	14,387	14,717	16,489	1.1	2.3	2.5
Native American	12,557	12,908	13,843	1.4	1.4	1.3
Hispanic	14,406	14,504	14,876	.3	.5	1.2
Metro	24,151	23,859	25,944	-.6	1.7	2.1
United States	22,699	22,462	24,436	-.5	1.7	2.2
Earnings:						
Nonmetro	10,612	10,366	11,224	-1.2	1.6	2.5
Black	9,074	9,037	9,927	-.2	1.9	2.3
Native American	8,214	8,349	8,497	.8	.4	-.4
Hispanic	8,909	9,039	8,775	.7	-.6	.5
Metro	16,380	15,950	17,200	-1.3	1.5	2.0
United States	15,193	14,812	15,985	-1.3	1.5	2.1
Capital returns:[1]						
Nonmetro	3,314	3,141	3,240	-2.6	.6	2.4
Black	2,221	2,178	2,268	-1.0	.8	2.9
Native American	1,451	1,347	1,337	-3.6	-.2	1.9
Hispanic	2,637	2,294	2,242	-6.7	-.5	2.2
Metro	4,603	4,429	4,726	-1.9	1.3	2.9
United States	4,338	4,167	4,424	-2.0	1.2	2.9
Transfer payments:						
Nonmetro	3,166	3,501	4,064	5.2	3.0	2.1
Black	3,091	3,502	4,294	6.4	4.2	2.9
Native American	2,892	3,212	4,009	5.4	4.5	4.6
Hispanic	2,860	3,171	3,859	5.3	4.0	2.3
Metro	3,168	3,479	4,018	4.8	2.9	1.7
United States	3,168	3,484	4,027	4.9	2.9	1.8

Note: Earlier years' incomes were converted to 1996 dollars using the chained-type personal consumption expenditures price index.

[1] Capital returns include dividends, interest, and net rent.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

As shown in the earnings per job article, pp. 55-58, many of the Black counties have manufacturing-dependent economies and many have high levels of commuting to other counties for work. Almost none of the Native American or Hispanic counties are manufacturing-dependent or have high commuting. With manufacturing paying higher wages than most other rural industries and access to higher wage work in neighboring counties, higher earnings per capita in Black counties than in the other minority counties is understandable. But, all three minority county groups have low proportions of transportation, wholesale trade, and financial sector jobs, suggesting that they generally have smaller, less diverse economies than rural areas overall do.

Per Capita Income Varies Less Among Rural Black Counties

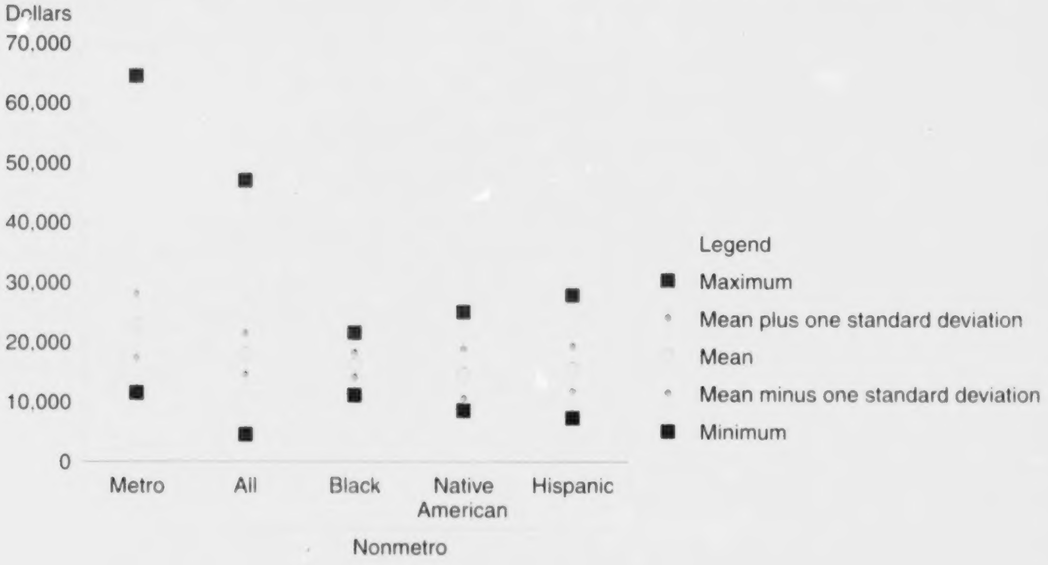
Even with income growth during the 1990's that has been comparable with or even better than overall rural growth, per capita income in the three minority groups remain well below the rural average. Examining the range of incomes of individual counties within each group provides additional insight into the economic status of the groups. The Black counties' per capita incomes fall within a very small range, from $11,033 to $21,364 (fig. 1). The income range of Native American counties is somewhat wider, from $8,508 to $24,832. And, the income range of Hispanic counties is even wider, from $7,233 to $27,648. Although the worst off Black county has per capita income nearly $4,000 higher than the worst off Hispanic county, the best off Hispanic county has a per capita income more than $6,000 higher than the best off Black county. The manufacturing bases and high commuting of many Black counties appear to provide a higher income floor, but not a higher income ceiling.

Another way to investigate the diversity in per capita income among minority counties is to look at trends for the substantial (one-third up to one-half minority) and predominant (one-half or more minority) subgroups of counties within each minority group. Within each minority county group, the substantial minority subgroup has higher per capita income than the predominant minority subgroup (see app. table 10, p. 130). But the gap between the substantial and predominant Black counties' incomes is much narrower ($1,865 in 1996) than between the other minority county subgroups ($3,075 between the Native American subgroups and $4,010 between the Hispanic subgroups). The substantial and predominant Black counties each had higher per capita income in 1996 and faster growth during 1995-96 than their counterparts in the Native American and Hispanic county groups. *[Linda M. Ghelfi, 202-694-5437, lghelfi@econ.ag.gov]*

Figure 1

Ranges of per capita incomes among counties, by racial/ethnic status, 1996

Athough the group of Black counties averages higher income than the other minority groups, a few Native American and Hispanic counties have higher per capita incomes than any of the Black counties



Note: Two-thirds of Black counties and about three-quarters of the counties in each of the other categories have per capita income within plus or minus one standard deviation of the mean.
Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Growth in Rural Transfer Payments for Some Public Assistance Programs Offsets Sharp Declines in Others

In the face of a strong economy, growth of nonmetro and metro per capita transfer payments to individuals slowed steadily during the 1990's, although transfers continued to grow slightly faster in nonmetro areas. Per capita transfer payments in most major program categories either slowed or declined, but not all individual programs responded in the same way. In the public assistance category, per capita transfers of nonmetro and metro per capita transfers for Aid to Families with Dependent Children (AFDC) and food stamps declined markedly, with AFDC per capita benefits declining more sharply in nonmetro than in metro areas. At the same time, the growth rate for per capita transfers for "other income maintenance programs" quickened. Nonmetro counties with large minority populations had higher per capita payments for all public aid programs, indicating a greater reliance on public assistance in these counties.

Rural Americans received $208 billion of over $1 trillion of national cash and in-kind benefits transferred to individuals by Federal, State, and local governments in 1996. On a per capita basis, this amounted to $3,894—up from $3,318 in 1989 and $3,709 in 1994 in real dollars. In comparison, real per capita transfers to urban Americans grew from $2,999 in 1989 to $3,677 in 1994 to $3,841 in 1996. At the beginning of the decade, nonmetro per capita transfers exceeded metro transfers by over $300. By 1996, metro per capita transfers lagged nonmetro by only $53. Although per capita transfer payments were similar, government transfers accounted for a larger share of nonmetro than metro personal income—21 percent versus 15 percent (app. table 11).

Major public spending on cash transfer payments traces back to the Social Security Act of 1935 that spawned programs like Social Security and forerunners to Unemployment Insurance, Supplemental Security Income (SSI), and Aid to Families with Dependent Children (AFDC). The establishment of other cash and in-kind benefit programs—food stamps, Medicare, Medicaid—followed during the 1960's and 1970's.

In August 1996, Congress enacted major Federal legislation to reform the public welfare system. Unlike earlier efforts to reform welfare, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) altered the scope and structure of most major public aid programs. The act's provisions also replaced AFDC, the 61-year-old Federal welfare program, with Temporary Assistance for Needy Families (TANF), a system of State-run low-income assistance programs funded by Federal block grants. While it is too soon to fully assess its impacts, this article's results suggest that the anticipation of impending changes in the welfare system along with other policy changes, bolstered by a favorable economy, may already be reshaping public spending for public aid programs.

Six Out of 10 Public Assistance Dollars Are for Medicaid Benefits

The proportional composition of nonmetro and metro transfer payments is remarkably similar. Social insurance programs (Social Security, Medicare, and retirement and disability programs) represented the overwhelming share of transfer spending in 1996. Programs to aid low-income families and children (income maintenance programs and Medicaid) accounted for about one-quarter of rural transfers. Of the $52 billion that rural areas received for public assistance programs, over three-fifths went for Medicaid health benefits. Food stamps, SSI for elderly and disabled citizens, and miscellaneous "other income maintenance" programs (including the Earned Income Tax Credit (EITC), general assistance, emergency assistance, and other small programs) contributed about one-third of rural public assistance dollars. The remaining 5 percent went for welfare benefits under AFDC (fig. 1).

Rural Transfers Continue to Grow Slightly Faster than Urban Transfers

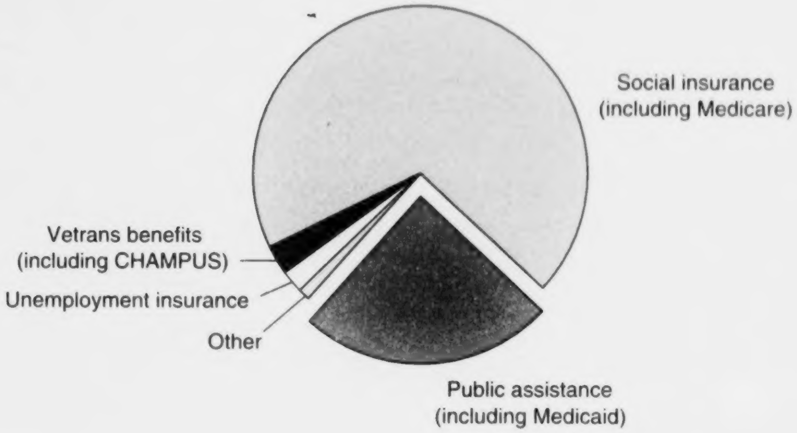
The rates of annual change in transfer payments generally wax and wane with changes in the national economy. Federal, State and local transfer dollars increase to buffer the effects of economic recessions on local economies and slow when the economy is strong. During the late 1980's, transfer payments were growing at a rate of under 2 percent per year. In response to the 1990-91 recession, annual growth rates increased sharply, reaching nearly 7 percent in 1990-91 and 1991-92 in nonmetro and metro areas. As the economic recovery gained strength, the metro and nonmetro transfers growth rate slowed dramatically reaching a low of about 1 percent or less in 1993-94. In 1995-96, the nonmetro annual growth rate stood at 2.2 percent—slightly higher than the metro rate

Figure 1

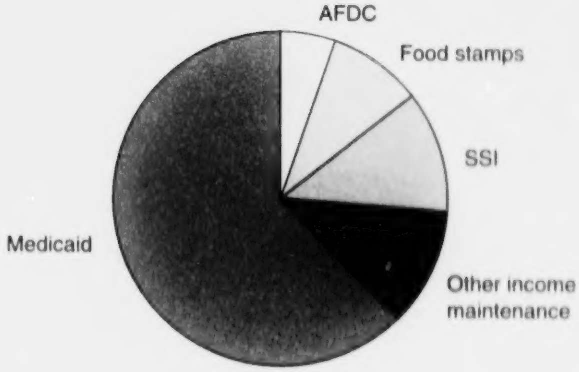
Sources of nonmetro transfer spending, 1996

Social insurance and public assistance programs account for 95 percent of nonmetro transfer payments

Transfer payments[1]
(\$208.2 billion)



Public assistance[2]
(\$51.6 billion)



[1] Transfer payments to individuals—96 percent of total transfers.

[2] Includes Medicaid and the income maintenance programs—Aid to Families with Dependent Children (now Temporary Assistance for Needy Families), food stamps, Supplemental Security Income, and "other income maintenance." The latter consists of general assistance, emergency assistance, refugee assistance, foster home care payments, Earned Income Tax Credits, and energy assistance.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

of 1.8 percent. Since the early 1980's, nonmetro transfers growth has slightly surpassed metro growth in all years but one (fig. 2).

During the most recent 5-year period, per capita transfers' annualized growth rates for the three major program categories, which represented the bulk (over 95 percent) of nonmetro and metro 1996 transfer dollars, either slowed or declined in response to economic recovery (app. table 11). Between 1991-96, per capita retirement and disability benefits grew slowly at rates well under 2 percent per year. The growth of per capita medical benefits has slowed from rates exceeding 10 percent during 1989-91 to about 7 percent or more per year (both nonmetro and metro) during 1991-94 to around 5 percent during 1994-96. Of the program categories, medical transfer payments continued to grow most rapidly. Growth rates in the income maintenance category, which had begun to slow during 1991-94, shrank to 0.93 percent in nonmetro and -0.43 percent in metro areas by 1994-96, but not all individual programs responded alike (app. table 11).

AFDC Benefits Decline More Rapidly in Rural than Urban Areas

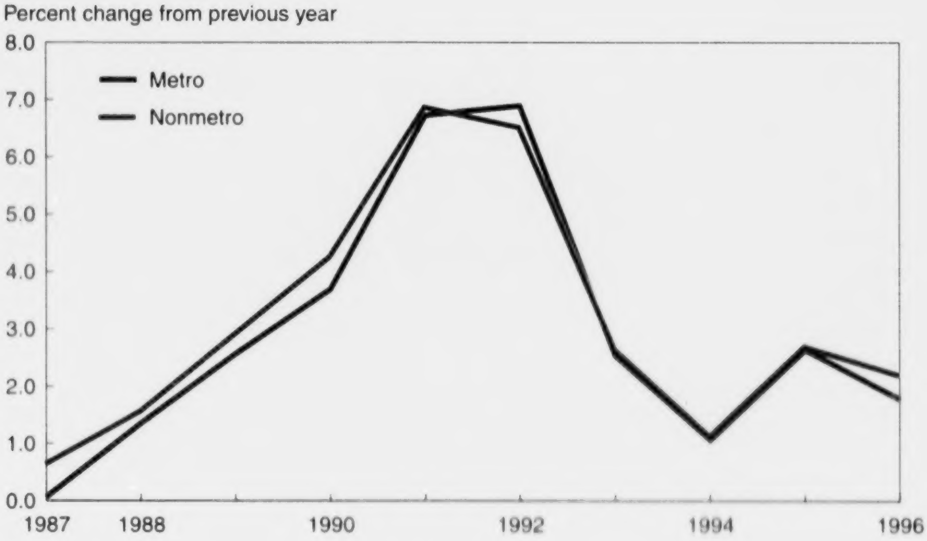
Growth rates in per capita transfers for the major income maintenance programs and Medicaid either slowed or declined, but per capita transfers for programs subsumed under "other income maintenance programs" grew substantially during 1994-96. These trends began to develop during the post-1991 economic recovery.

The growth rates in nonmetro and metro Medicaid benefits, which grew rapidly during the early 1990's, slowed to about 3 percent per year, and SSI growth slowed markedly during 1994-96. Per capita benefits for two of the three major income maintenance programs—AFDC and food stamps—declined rapidly. Nonmetro and metro food stamp payments declined at about the same rate. AFDC per capita benefits, however, declined more sharply in nonmetro than in metro areas (an average annual change of -11.0 percent versus -8.3 percent) (fig. 3).

Figure 2

Annual change in real per capita transfer payments, by residence, 1987-96

Growth in government transfer payments to individuals leveled off following the recessionary periods early in the 1990's

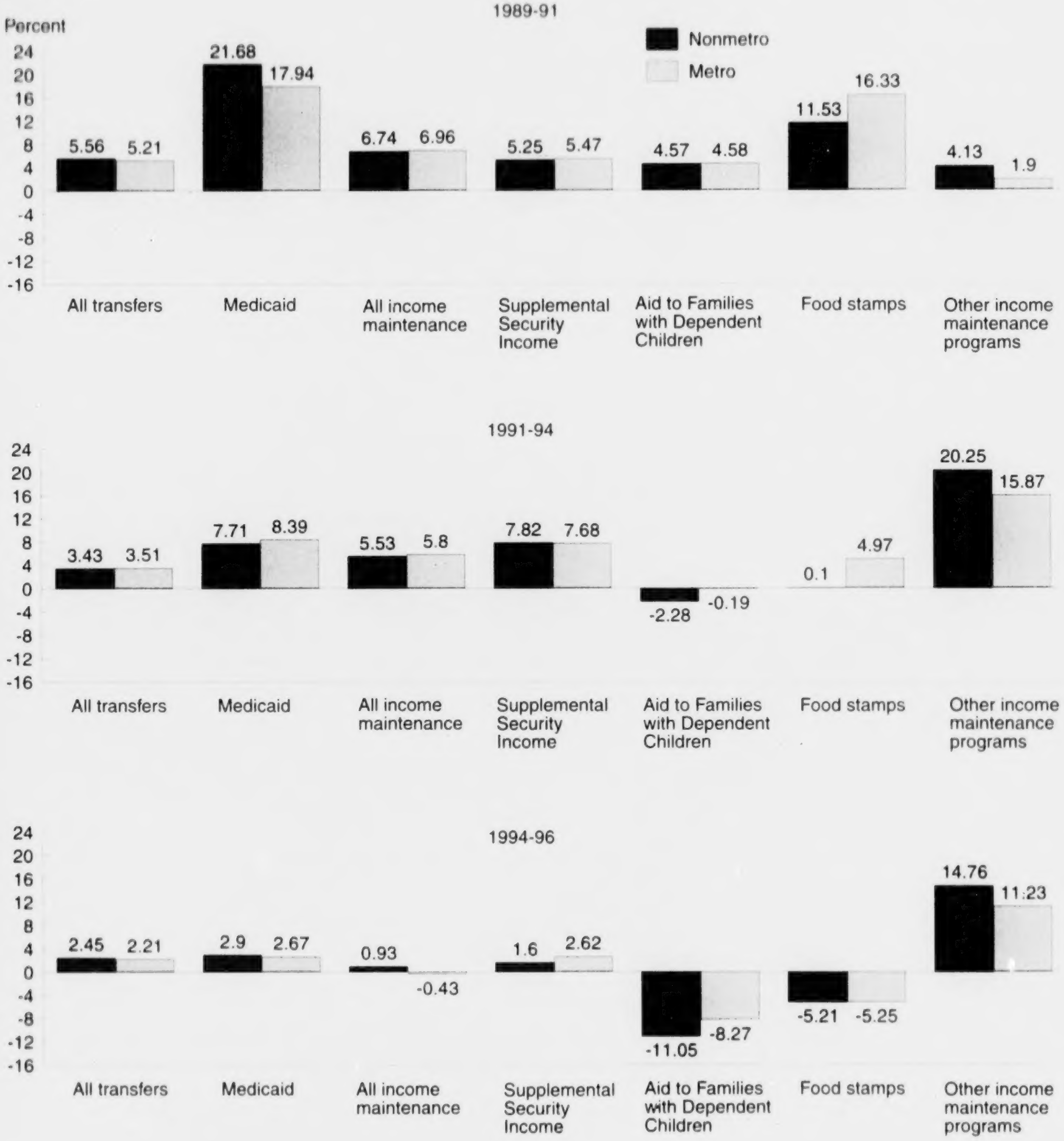


Source: Calculated by ERS using data from the Bureau of Economic Analysis

Figure 3

Average annual change in transfer payments for selected programs, by residence, 1989-91, 1991-94, and 1994-96

Nonmetro benefits declined more rapidly than urban benefits during 1994-96



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

On the other hand, transfers for "other income maintenance programs"—EITC, general assistance, emergency assistance and others—grew at rates much faster (14.7 percent in rural and 11.2 percent in urban areas) than rates for all transfers or any of the other programs (fig. 3).

The reasons for the current trends in public assistance programs are not fully known. A recent ERS analysis demonstrates that declining AFDC caseloads mainly account for declining AFDC benefit payments, but not for the swifter decline in nonmetro benefits. Rather, the nonmetro difference may be traced to disproportionate nonmetro declines in average benefit payments per child. Some of the factors that may underlie the pattern of change include more favorable economic conditions, which have opened up new jobs in local labor markets, thus diminishing the need for public assistance; significant policy changes in State and Federal public aid programs over the past few years; and resultant changes in client populations and behavior.

As noted above, the enactment of PRWORA and its provisions affected the scope and operation of the major public assistance programs—AFDC, SSI, food stamps, and Medicaid. Furthermore, PRWORA broadened the States' role and responsibility for designing and operating their State programs tailored to meet local conditions and needs. Many States, however, had already begun to revamp their welfare programs under Federal waivers granted even before the enactment of PRWORA. Between 1993 and August 1996, the Department of Health and Human Services (HHS) granted waivers to 43 States and the District of Columbia to develop their own State welfare programs. Furthermore, PRWORA's provisions allow States the option of choosing to operate under their State waivers as long as they are in effect, even if waiver provisions are inconsistent with PRWORA provisions.

Thus, the recent declines in AFDC and food stamp benefits reflect, to some extent, the new policies and practices instigated by State waiver programs along with possible client responses to pending changes from the implementation of PRWORA provisions that would tighten eligibility requirements, set time-limits for client groups, and convert Federal welfare funds to fixed State block grants. The faster declines in AFDC benefits in nonmetro than metro areas are consistent with published statistics showing that States with disproportionately large rural and/or minority populations have traditionally paid low welfare benefits, which may affect the amount of TANF Federal block grants available to predominantly rural States to run their own State programs (see *Rural Conditions and Trends*, Vol. 8, No. 1, 1997, pp. 38-47).

Rising benefits in "other income maintenance programs" may signal that, in the face of a changing public welfare arena, clients are relying more on State programs like general assistance or emergency assistance for short-term help. Another reason explaining the growth in "other income maintenance programs" is policy changes in the Earned Income Tax Program (EITC), causing public costs to double between 1992-96. We should be able to make more definitive statements about underlying causes after the 1997 data become available.

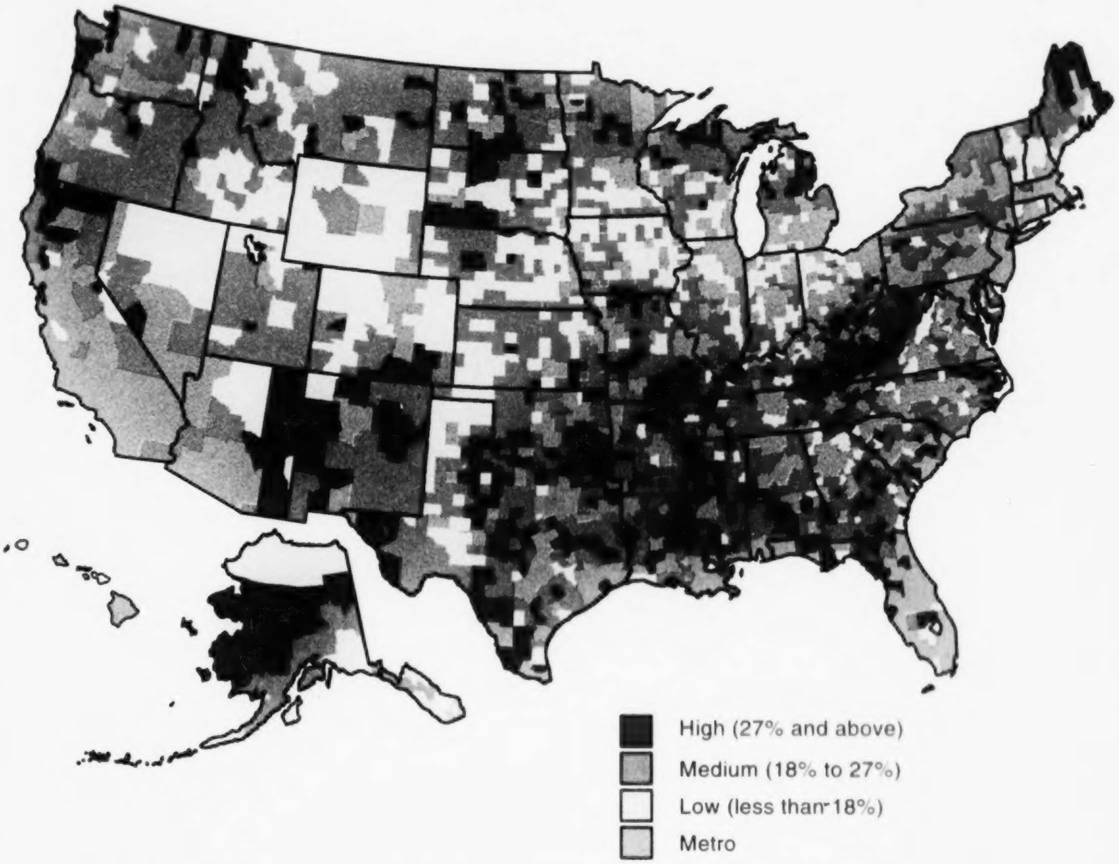
Dependence on Transfer Payments Differs Among Rural County Types

The level and program mix of transfer payments varied geographically and among different types of nonmetro counties in 1996. With $4,308 per capita, residents in retirement-destination counties relied more on transfer benefits than all nonmetro residents, but over half of the benefits came from transfers connected with social insurance programs and Medicare. In comparison, the 535 counties with persistently high poverty rates received higher shares of transfer benefits from income maintenance programs and Medicaid but lower shares from social insurance programs (app. table 12).

The levels of rural per capita transfers also varied regionally. Nonmetro residents living in the Northeast and South received higher per capita benefits than residents in the Midwest and West. Moreover, counties highly dependent on income from transfers—the top 25 percent of nonmetro counties that derived 27 percent or more annual average county personal income from transfers during 1994-96—were concentrated in certain areas of the country (fig. 4). (In one rural county, transfer payments represented 55 percent of its personal income.) High transfer counties are concentrated in the Appalachian areas of West Virginia and Kentucky, the Black Belt counties of the Deep South including the Mississippi River Delta, parts of Texas with high Hispanic populations, Western counties with large Native American populations, retirement areas in the Ozark region, upper New England, and parts of northern Florida and northern California. High-transfer counties received $4,696 per capita transfer benefits from all programs in 1996. On a county basis, their per capita transfers ranged from a high of $8,642 to a low of $2,158 (app. table 12).

In addition, high-transfer counties were disproportionately found among persistent poverty counties and counties with large concentrations of minority population. Nearly 70 percent or more of counties where a single minority group—Black, Native American, or Hispanic—constituted a majority of the population were also high-transfer counties (app. table 12).

Figure 4
Nonmetro county dependence on government transfer payments, 1994-96
High-transfer counties include many minority counties



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Hispanic Counties Receive Lower per Capita Transfer Payments

Based on unusually high poverty rates among minorities (reported elsewhere in this issue), we expected all of the minority county types to have high per capita transfer payments. The picture is more mixed, however. Compared with all nonmetro counties, total per capita transfer benefits in both substantial and predominant Black counties and predominant Native American counties were substantially higher than the per capita benefits for all nonmetro counties, but the per capita amounts in all other minority counties were lower (app. table 12).

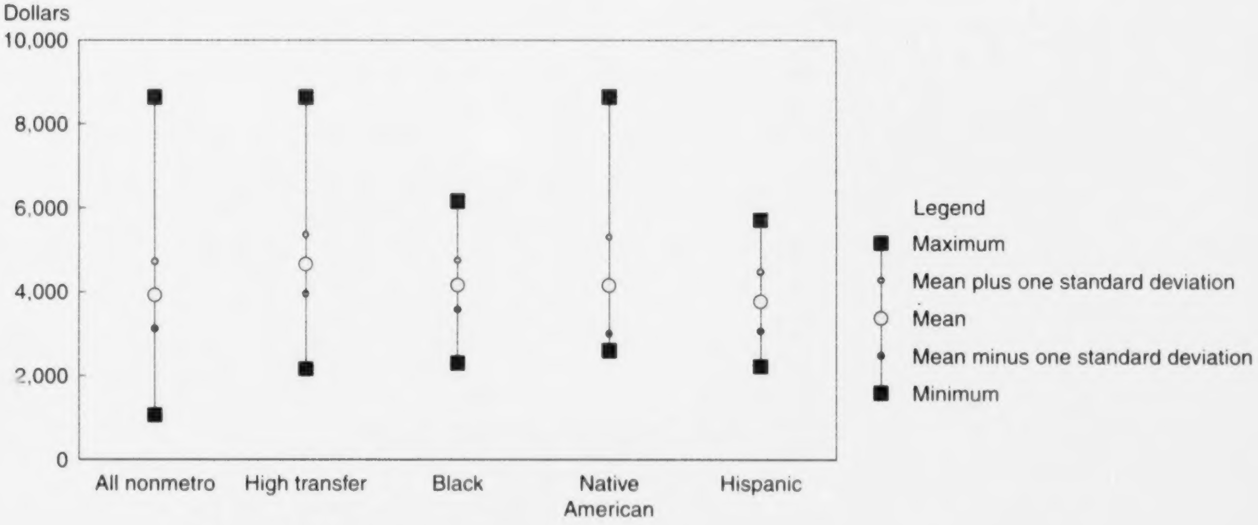
The patterns shift somewhat when we examine the average (mean) county per capita transfers and county variations within each of the county minority groups instead of the aggregate per capita transfers for the different minority groups (fig. 5). Based on the county averages, per capita transfer payments for Black counties ($4,153) and Native American counties ($4,141) exceeded the nonmetro county average, while the county average for the Hispanic counties ($3,763) was lower than the all nonmetro average. The narrow range of per capita transfers for Black counties suggests consistency in the levels of transfers' income among these counties. Moreover, the amount of the average county per capita transfers varied according to the designation as a substantial or predominant minority group (not shown). The average county benefits for predominantly and substantially Black counties and predominantly Native American counties were above and the county benefits for substantially Native American and substantially and predominantly Hispanic counties were below the all nonmetro county average.

The lower minority eligibility and participation rates for some programs may partly explain the lower county average per capita transfers in the Hispanic counties. As noted elsewhere in this issue, the Hispanic population has a lower age structure than other minority populations, which would influence minority participation in the social insurance programs. In addition, Hispanics who are illegal aliens have always been ineligible for most major social insurance and public assistance transfer programs and PRWORA provisions

Figure 5

Mean and ranges of per capita transfer payments, by nonmetro county types, 1996

While per capita transfer payments are highest in Black counties, considerable variation exists among counties in each minority group



Source: Calculated by ERS using data from the Bureau of Economic Analysis.

place new limitations on legal immigrants' eligibility for certain programs. However, immigrants are eligible to participate in several public programs, especially those geared toward children, such as the school lunch program and Medicaid. It is also important to keep in mind that minority counties include nonminority residents whose characteristics influence the amount of per capita transfers received by a given county.

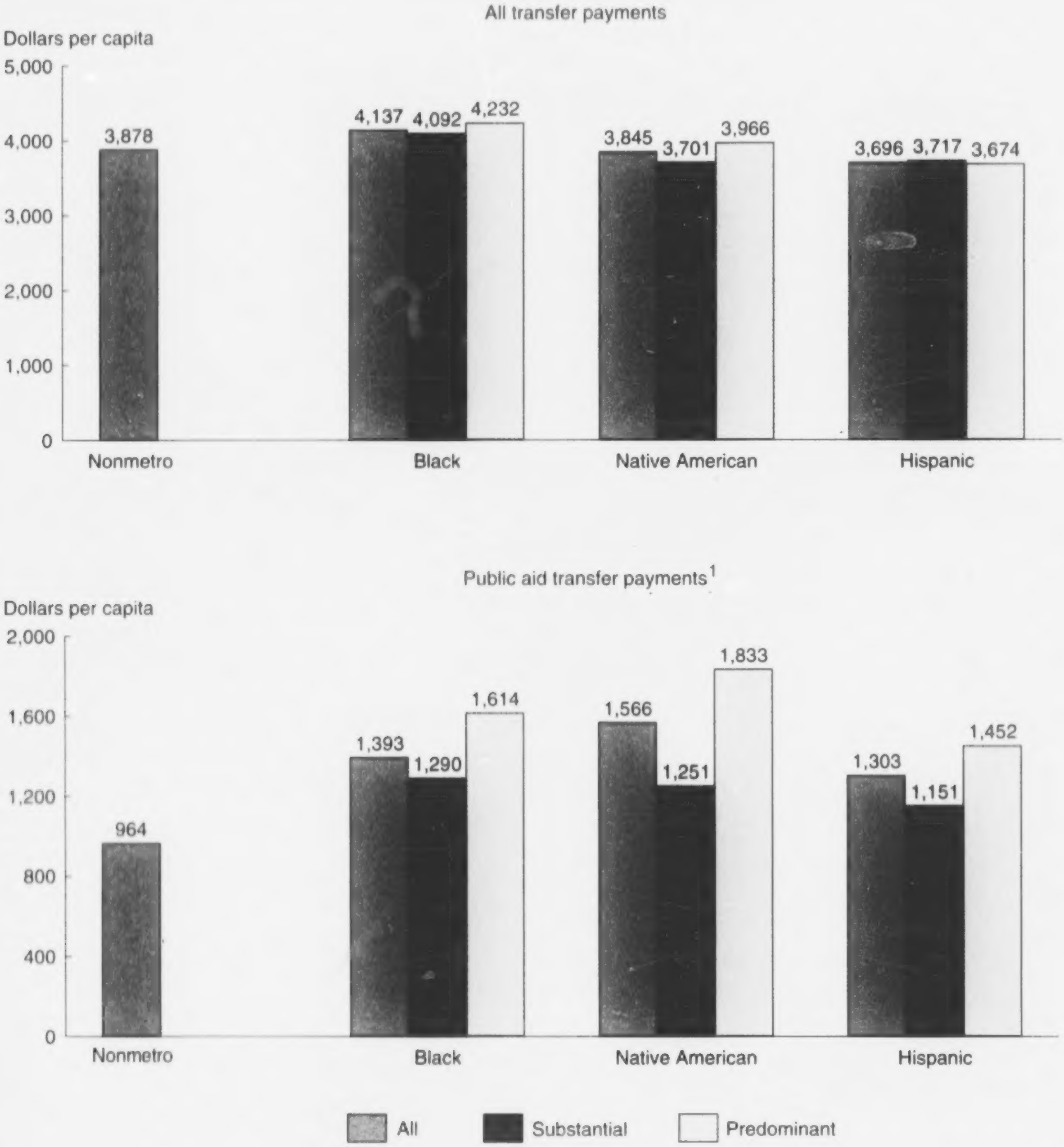
Minority Counties Rely Heavily on Public Aid Benefits

The results clearly show that all categories of minority counties relied heavily on income transfers from public assistance programs in 1996 (fig. 6). Per capita public assistance transfers in all of the minority groups were at least 20 percent higher than the nonmetro per capita payments for all of the minority groups and ranged upward to 90 percent higher in the predominant Native American counties. Per capita amounts increased as the share of minority representation reached the majority mark in all the minority categories. Furthermore, the pattern of higher per capita public assistance transfers was consistent across all public assistance programs (app. table 13). It will be interesting to observe whether or not these patterns hold true in the post-PRWORA era when newer data become available. *[Peggy J. Cook, 202-694-5419, pcook@econ.ag.gov]*

Figure 6

Nonmetro per capita transfer payments, by minority county type, 1996

Counties with high concentrations of Black population rely more heavily on transfer payments than other minority counties while all high minority counties depend heavily on public aid transfer benefits



[1] Includes income maintenance programs and Medicaid.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Sources of Rural Household Income Vary by Demographic Groups

The differences in the sources from which households receive cash income and other in-kind benefits are especially striking when rural households are compared by racial and ethnic groups. The share of rural household income from earnings ranges from about 72 percent for Whites and Blacks to 80 percent for Hispanics. Capital returns account for 6 percent of Whites' income, but only 1.3 percent of Blacks' and Hispanics' income. Social insurance programs contribute 18 percent for Whites, 13 percent for Blacks, and 10.4 percent for Hispanics. The share of income from government assistance programs range from 3.3 percent for Whites to 8 percent for Hispanics and 12 percent for Blacks.

Total income available to a household derives from a number of cash and in-kind sources. The composition of household income and the relative importance of different income sources among rural and urban households and among rural racial and ethnic groups provide a way to assess the well-being of these household groups. Household income is grouped into four categories for this analysis: earnings from wage and salary jobs and self-employment; capital returns from dividends, interest, and rents; income from social insurance programs, such as Social Security, pension or retirement benefits, and the fungible value of Medicare; and income from government assistance programs, such as unemployment insurance or the market value of food stamps (see "Definitions").

Rural household income averaged (mean) $35,139 in 1996, 25 percent less than urban household income ($46,984). Rural and urban households are similar in the composition of income and shares of income by source. Differences arise when comparing rural households by racial and ethnic groups. Rural White households rely more on social insurance programs and capital returns and less on government assistance than do rural Black and Hispanic households.

Minorities Rely More Heavily on Transfer Income than Whites

The share of rural household income from earnings ranges from about 72 percent for Whites and Blacks to 80 percent for Hispanics (fig. 1). In contrast, capital returns represents 6 percent of Whites' income, but only 1.4 percent of Blacks' income, and 1.3 percent of Hispanics' income. Social insurance programs contribute 18 percent for Whites, 13 percent for Blacks, and 10.4 percent for Hispanics. Income shares for government assistance programs range from 3.3 percent for Whites to 8 percent for Hispanics and 12 percent for Blacks.

The composition of government assistance programs varies between rural and urban areas and among racial and ethnic groups within rural areas (fig. 2). Aid to Families with Dependent Children (AFDC) plus general assistance, along with other assistance for education, housing, and energy add up to a smaller share of government assistance programs for rural than urban households (36 versus 24 percent). Other programs take on a larger share for rural households, including the Earned Income Tax Credit (by 30 percent), food stamps and the school lunch program (by 18 percent), and Medicaid (by 11 percent). The rural-urban difference in shares of household income for the other two programs, Unemployment Insurance and Supplemental Security Income (SSI), are less than 10 percent.

Average household income from government programs varies considerably among racial and ethnic groups. The most notable differences occur with SSI, food stamps and the school lunch program, and the Earned Income Tax Credit (fig. 2). For rural Blacks, the average household benefits from SSI are nearly four times that of rural Whites and rural Hispanics. This is due to the importance of SSI to the rural elderly Black households.

Rural Black households, on average, receive 4.5 times the amount of food stamp benefits received by rural White households. Rural Hispanics receive 2.8 times that of rural White households. The larger amount for rural Hispanics is consistent with the difference in poverty rates, which for rural Blacks and Hispanics is nearly 3 times that of rural Whites (see the article on rural poverty rates, p. 81). Why rural Black households receive a disproportionate amount of support from food stamps and the school lunch program is partially explained by a larger participation rate for the Food Stamp program among those eligible. Other possible explanations are household size and income levels when calculating food stamp benefits for those who participate.

For the Earned Income Tax Credit, the average rural Black household receives 3 times the amount received by rural White households. Rural Hispanics receive 3.4 times that of rural White households. For AFDC and general assistance, rural Black households average 2.3

Definitions: Households and Their Sources of Income

Data on households and their sources of income are from the March 1997 Current Population Survey (CPS) and refer to income in 1996. For our analysis, we distinguish household units which are economically independent even if they live at the same address, so unrelated families and unrelated individuals are treated as separate household units. Households are defined as (1) all persons living in a housing unit who are related by blood, marriage, adoption, or other legal arrangements; or (2) a person living alone or sharing a household with others, or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent.

We also make several exceptions by omitting certain households that are included in the CPS. First, we exclude households whose head is in the military but they live off-base, whereas CPS only excludes households whose head is in the military and they live on-base. Second, we exclude households whose self-employed income leads to a large negative income for the year.

For the sources of household income, the imputed value of in-kind government transfers are included along with cash or money income. We group the sources of household income into four categories for our analysis: "earnings" from labor as hired workers and self-employed; "capital returns" from dividends, interest, and rents; "social insurance programs" from workers compensation, Social Security, veterans' payments, survivor benefits, disability benefits, pension or retirement income, and the fungible value of Medicare; and "government assistance programs" primarily from means-tested transfer programs (fig. A).

Government assistance programs consist of seven program categories: unemployment insurance, Supplemental Security Income (SS!), Aid to Families with Dependent Children (AFDC) and general assistance (public assistance), Earned Income Tax Credit, the fungible value of Medicaid, the market value of food stamps and the school lunch program, and "other assistance" for education, housing, and energy (fig. B).

"Inter-household transfers" from alimony, child support, and financial assistance as well as the CPS category of "other income" are excluded in our analysis, except for the inter-household transfers in the discussion of rural poor single adults with children. On average, these two income sources amount to only 0.66 percent and 0.18 percent of household income. For rural poor single adults with children, inter-household transfers account for 6 percent of income.

Government transfer programs are divided into two categories: "government assistance programs" and "social insurance programs." (This treatment of government transfer programs using data from the CPS differs from the treatment of government programs in a previous article on rural transfer payments which uses the Bureau of Economic Analysis (BEA) transfers data.)

To compare the importance of different income sources among household groups, we use mean income by source for each household group. Mean income by source is the amount obtained by dividing the income from a source for a group by the number of household units in that group, even when some household units in a group did not receive income from a particular source.

Figure A

Sources of rural household income, 1996

Earnings represent the overwhelming majority of rural household income

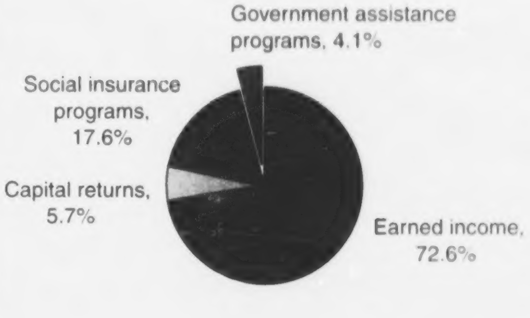
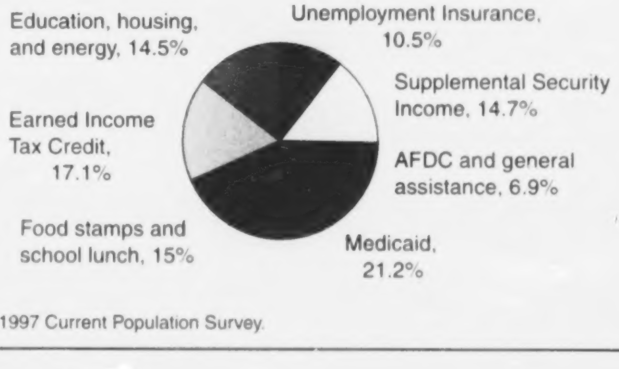


Figure B

Government assistance programs to rural households

Government assistance programs are distributed fairly evenly among different programs

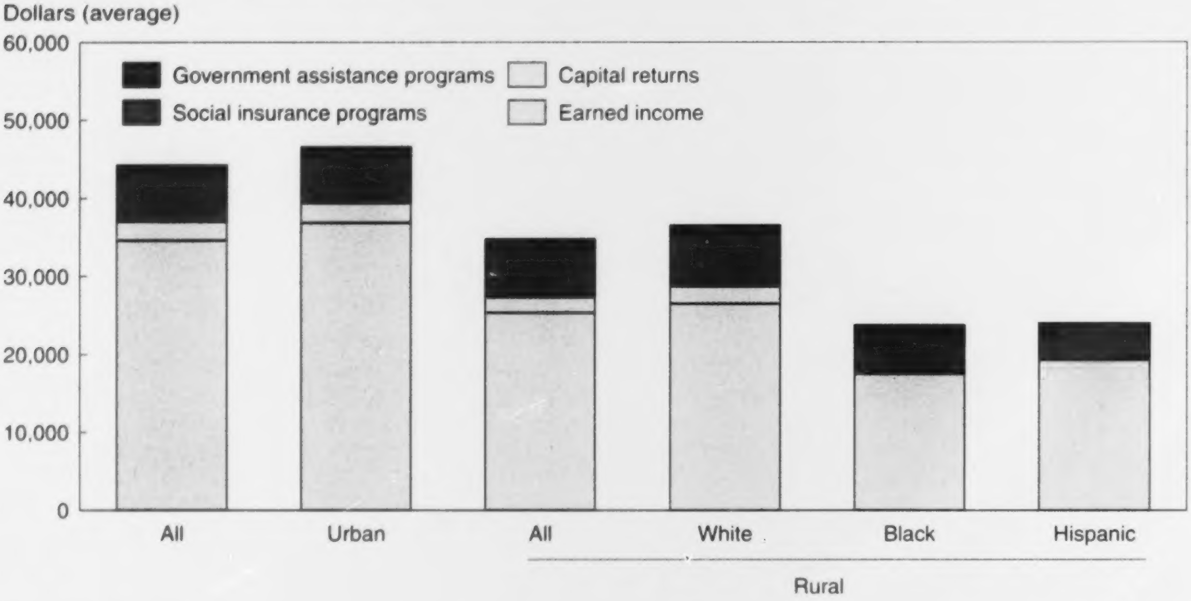


Source: Both figures A and B prepared by ERS using data from the March 1997 Current Population Survey.

Figure 1

Sources of household income, by residence and racial and ethnic groups, 1996

Earned income is considerably lower for minorities

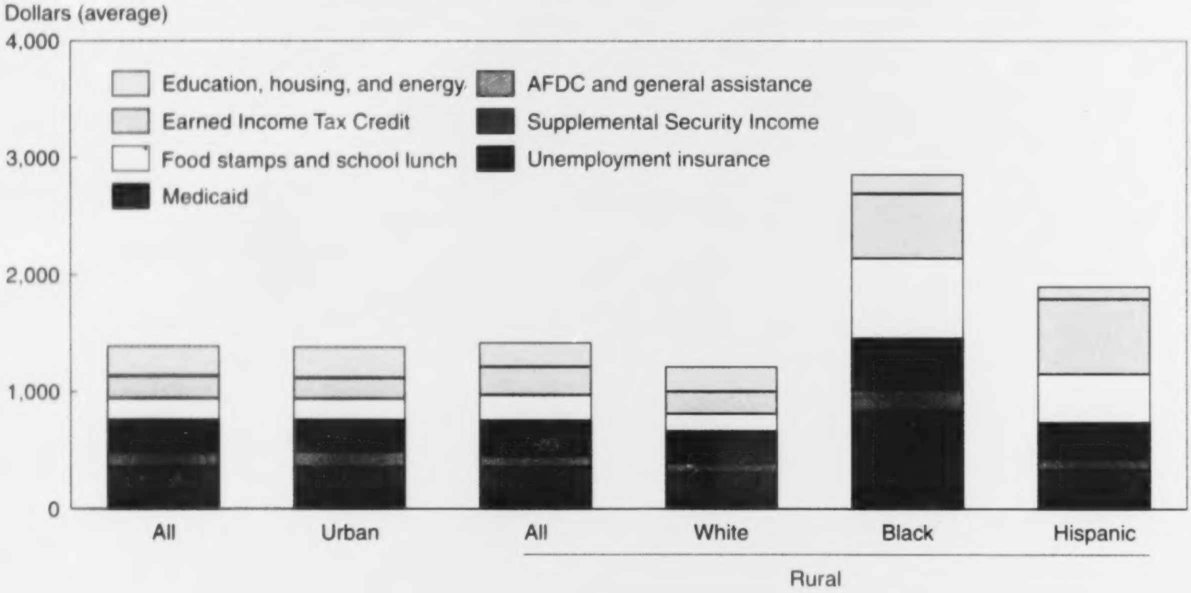


Source: Prepared by ERS using data from the March 1997 Current Population Survey.

Figure 2

Income from government assistance programs, by residence and racial and ethnic groups, 1996

Transfer income is most important to Blacks and Hispanics



Source: Prepared by ERS using data from the March 1997 Current Population Survey.

715

times the amount received by rural White households. Rural Hispanics receive only 1.2 times that of rural White households. The difference for rural Black and Hispanic households is smaller than expected due to differences in poverty rates, and factors other than income may influence the differentials in AFDC and general assistance payments. One reason is that rural Blacks live in States that pay low AFDC benefits, which is less true of rural Hispanics. Other reasons may be related to differences in participation rates for those eligible, and household size.

Rural Elderly Households Rely on Social Security and Medicare

Elderly households rely on a different mix of income sources than the younger population (fig. 3). Social insurance programs account for 66 percent of the rural elderly household income. This is slightly higher than the 61 percent for urban elderly households. Rural Black elderly households receive only 57 percent of their income from these sources, making up the difference through earnings.

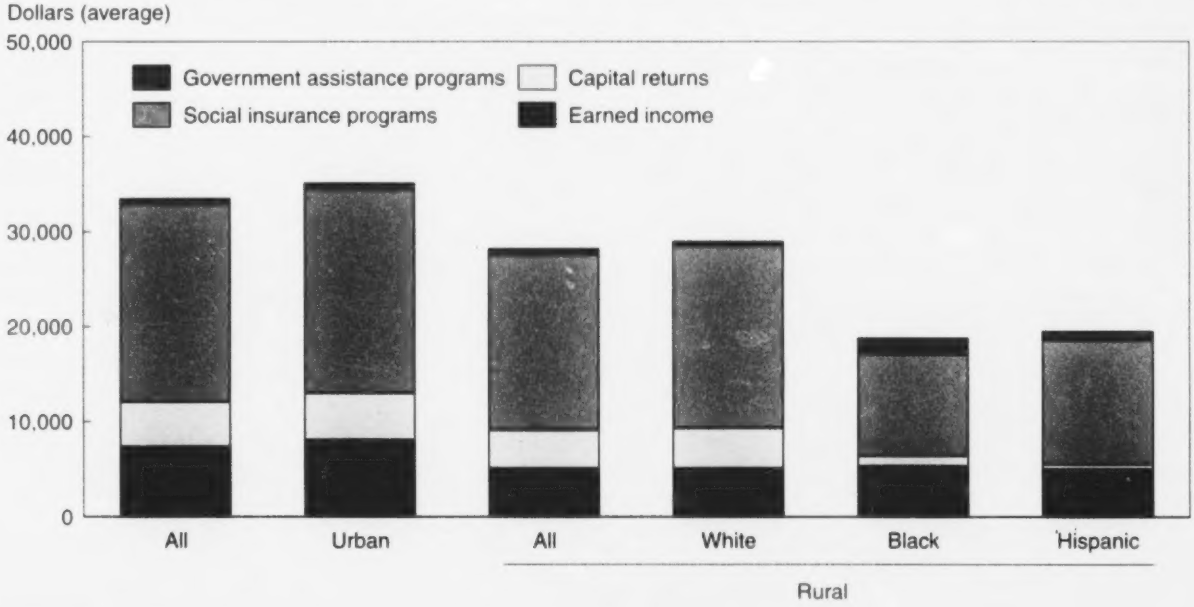
Overall, rural and urban elderly households receive an average of 22 percent of their income from earnings, one-third of the earnings share for all rural households. The range of earnings' shares among rural elderly racial and ethnic groups has its low of 17.5 percent for White households and its high of 28.3 percent for Black households. For rural elderly Blacks, a greater share of their income comes from earnings because they receive less from Social Security.

Capital returns for rural elderly households amount to 14.2 percent of total income, which is greater than the 5.7 percent for all rural households. Still, rural Black elderly households only receive 5.8 percent of their income from capital returns, while rural Hispanic elderly households receive even less at 2.4 percent. Government assistance programs account for only 2 percent of either all elderly household or all rural elderly household income. Differences exist among the rural ethnic groups. White rural elderly households receive 1.5 percent from government assistance programs, while Blacks receive 9 per-

Figure 3

Rural elderly household income, by residence and racial and ethnic groups, 1996

Social insurance programs and Medicare are the main sources of income



Source: Prepared by ERS using data from the March 1997 Current Population Survey.

cent and Hispanics receive 5 percent. The large share for rural Black elderly households is due primarily to large SSI payments. Rural Blacks receive lower Social Security payments, which results in a greater dependence on SSI. Larger than average Medicaid and food stamp payments also contribute to the larger share for government assistance programs to rural Black elderly households.

Poor Single Adult Households with Children Receive Less Income from Earnings

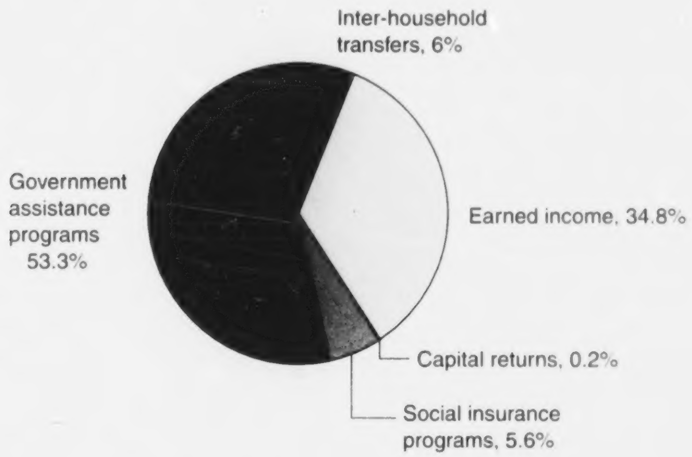
Forty-three percent of single adult households with children in rural areas have incomes below the poverty level, compared with 37 percent in urban areas. Earnings for these rural poor households amount to less than 35 percent of total income (fig. 4). (This is less than half the share for all rural households (see fig. 1). These households rely more on government assistance programs, which account for 53 percent of total income, compared with 11 percent for nonpoor households. Government assistance to rural poor single adult households with children come primarily from AFDC and general assistance (22.3 percent), food stamps and the school lunch program (33.5 percent), and Earned Income Tax Credit (20.7 percent) (fig. 5). Inter-household transfers—primarily alimony and child support—are important for this household group. They account for 6 percent of income, compared with less than 1 percent for all households. The composition of income for these households is essentially the same for comparable households in urban areas, though earnings for the urban households are slightly less at 33 percent of total income.

With the introduction of welfare-to-work incentives and other changes in welfare programs under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996, changes in the composition of household income will require close monitoring over the next few years, particularly for the poor single adult households with children in rural areas. *[Kenneth Hanson, 202-694-5427, e-mail khanson@econ.ag.gov]*

Figure 4

Income sources for rural poor single adults with children, 1996

Earned income is second in importance to other government transfers



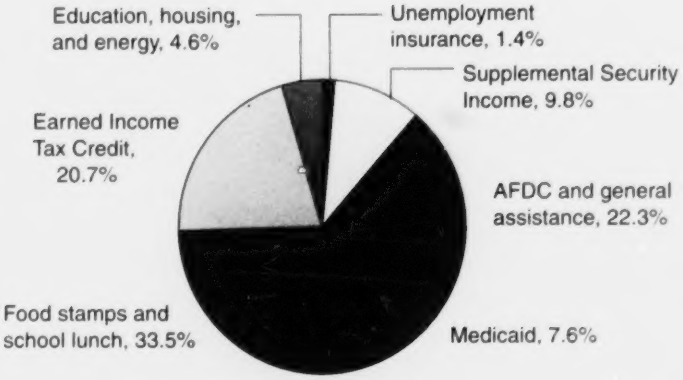
Source: Prepared by ERS using data from the March 1997 Current Population Survey.

71

Figure 5

Other government transfers to rural poor single adults with children, 1996

Food assistance is important



Source: Prepared by ERS using data from the March 1997 Current Population Survey.

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Rural Poverty Rate Unchanged

The rural poverty rate was unchanged from 1995 to 1996. Rural minorities, women, and children were especially disadvantaged economically. Poverty rates were highest in the rural South and West.

The poverty rate in rural America stood at 15.9 percent in 1996, essentially unchanged from the previous year, and higher than the urban poverty rate of 13.2 percent. The rural poverty rate has been quite stable over the last 8 years, remaining within a range of 1.6 percentage points (fig. 1).

Rural Minorities Are Especially Disadvantaged Economically

Poverty rates among rural minorities were nearly three times as high as that of rural Whites and substantially higher than those of urban minorities (fig. 2). The poverty rate was highest for rural Blacks, followed by rural Native Americans and rural Hispanics. Despite the higher incidence of poverty among minorities, almost two-thirds of the rural poor were non-Hispanic Whites because of the large White majority in the rural population (fig. 3). Over the past 10 years, as the rural Hispanic population has grown, the Hispanic share of the rural poor has nearly doubled, growing from 5.8 percent in 1986 to 11.1 percent in 1996. The Black share of the rural poor declined from 23.5 percent to 20.7 percent during the same period.

Why are poverty rates higher among rural minorities? Differences in education and household structure provide a partial, but by no means complete, explanation. Rural minorities have, on average, less education than rural Whites, and education is a strong predictor of income. In rural America, education differences account for 24 percent of the difference in poverty rates between Blacks and Whites, 45 percent of the difference between poverty rates of Hispanics and Whites, and 16 percent of the difference between poverty rates of Native Americans and Whites. Differences in household structure also result in higher poverty rates for rural Blacks and Native Americans (but not for Hispanics) than for rural Whites. Rural Blacks and Native Americans have higher proportions of female-headed families then do rural Whites, and poverty rates are higher for female-headed families than for other household types. Rural Hispanics, on the other hand, have a larger share of two-parent families than do non-Hispanic Whites. Household structure accounts for 30 percent of the Black-White poverty difference and 17 percent of the Native American-White poverty difference. Adjusting for household structure would increase the poverty gap between Hispanics and Whites somewhat.

Education and household structure only partially explain the higher poverty rates of rural minorities, however. Even for persons with similar education in households of the same type, poverty rates for rural minorities are about twice those of non-Hispanic Whites. Likely explanations of these differences include discrimination in employment and wages and concentrations of minorities in areas that are unable to attract high-wage employers.

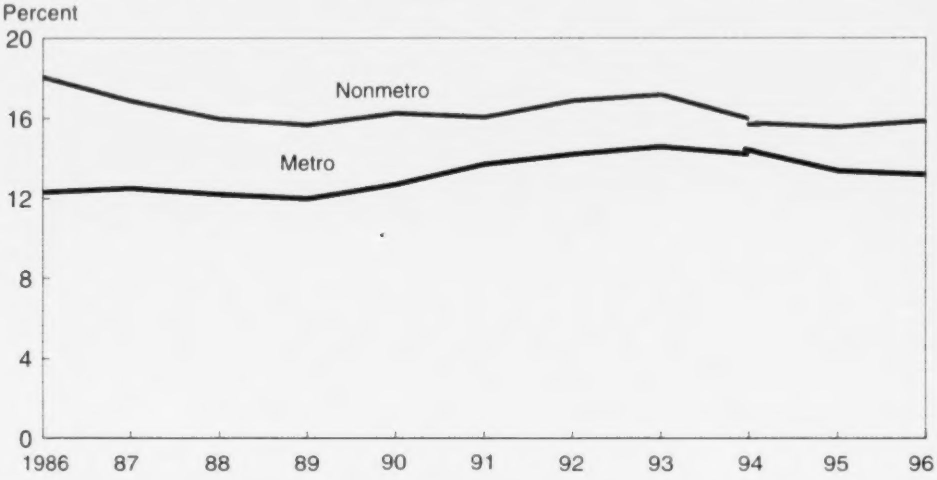
What Does the Poverty Rate Mean?

In concept, the poverty line is the minimum income level needed by a family or individual to just meet basic needs of food, shelter, clothing, and other essential goods and services. Official poverty lines adjusted for family size and composition are set by the Office of Management and Budget (OMB) for use by all Federal agencies. They are adjusted each year for inflation. In 1996, the poverty line was $15,911 for a family of two adults and two children, $10,815 for a family of one adult and one child, and $8,163 for a single individual. Each household's cash income (including pretax income and cash welfare assistance, but excluding in-kind welfare assistance, such as food stamps and Medicare) is compared with the poverty line for the household. The poverty rate for an area or for a category of people is the percentage of persons in households with income less than the poverty line for their household.

Figure 1

Poverty rate, by residence, 1986-96

The poverty rate in rural America remained unchanged from 1994 to 1996, while the poverty rate in metro areas declined 1 percentage point

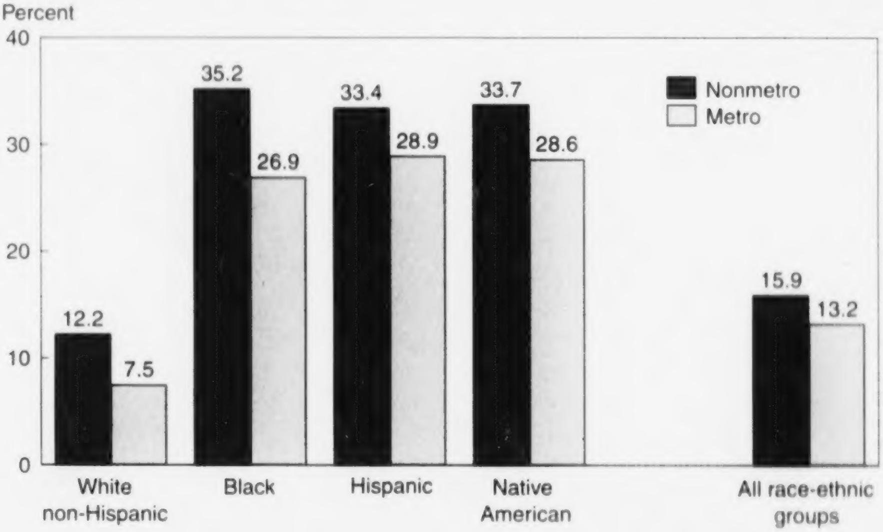


Note: Change of metro status of some counties caused a discontinuity in the data in 1994.
Source: Prepared by ERS using data from the Bureau of the Census' Consumer Income P-60 series (1986-96).

Figure 2

Poverty rates, by race/ethnicity and residence, 1996

Poverty rates are highest for rural minorities, nearly three times those of Whites and substantially higher than those of urban minorities



Source: Calculated by ERS using data from the March 1997 Current Population Survey.

720

More than Three Million Rural Children Live in Poverty

In 1996, 3.2 million rural children under the age of 18 lived in families with income below the poverty level. The poverty rate for all rural children was 22.4 percent; for rural Black children, 46.2 percent; and for rural Hispanic children, 41.2 percent. Most rural poor children (61.9 percent) lived in families headed by a single parent, and the poverty rate for rural single-parent families was 47.3 percent.

The poverty rate among the rural elderly (age 65 and above) was 13.5 percent, the same as that of rural working-age persons (app. table 14). This was substantially higher than the poverty rate of the urban elderly (9.9 percent), reflecting primarily the lower income of rural residents during their working years.

Poverty Higher in Rural Female-Headed Families

Rural women heading families or living alone are particularly disadvantaged economically. More than half of the rural poor lived in families headed by single women or were women living alone, although such households accounted for only 22 percent of the total rural population. In 1995, the poverty rate in rural female-headed families was 41.1 percent, and that for rural women living alone was 30.4 percent. By comparison, the poverty rate in rural two-parent families was 8.2 percent, while that for rural men living alone was 22.7 percent. Urban women also face economic disadvantages, but less serious than those of rural women (app. table 14).

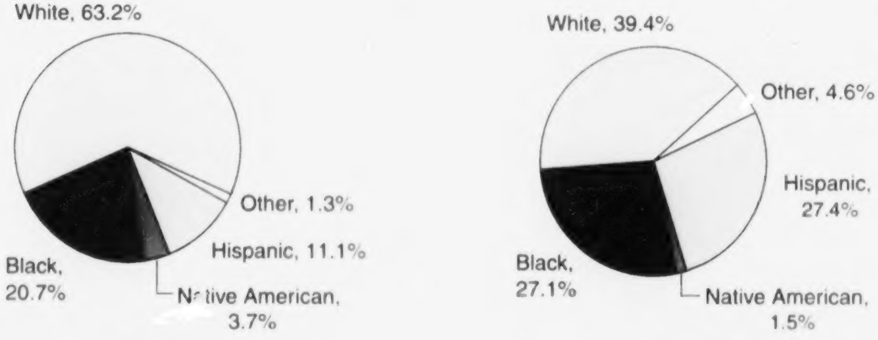
Most of the Rural Poor Live in Households with One or More Workers

Almost two-thirds of rural poor persons lived in families with at least one working member or, if they lived alone, were themselves employed at least part of the year. That proportion increased to 70 percent when households with no working-age adults were excluded. Even full-time work does not always provide sufficient income for basic needs. Among rural households with full-time workers, the poverty rate was 5.0 percent, and one-fifth of the rural poor lived in these households (app. table 14).

Figure 3

Racial/ethnic shares of nonmetro and metro poor, 1996

Racial and ethnic minorities are a much smaller share of the nonmetro poor than of the metro poor



Metro **Nonmetro**

Source: Prepared by ERS using data from the March 1997 Current Population Survey.

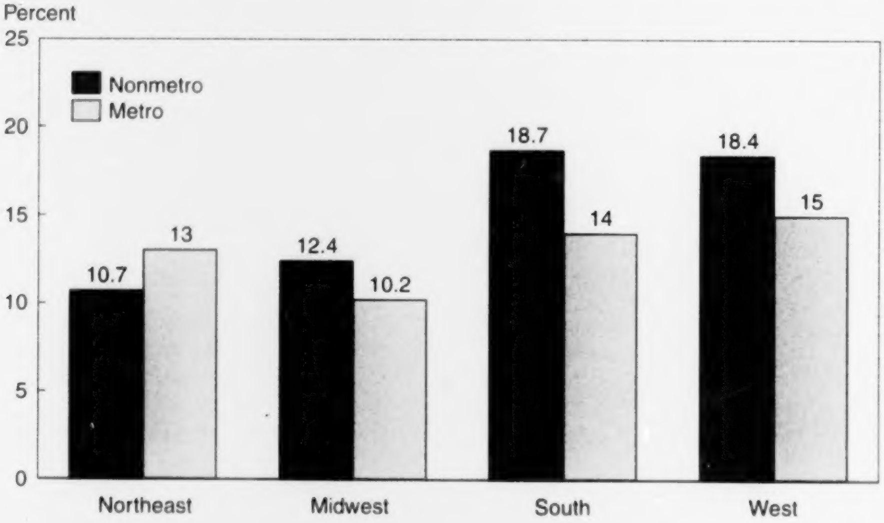
Rural Poverty Rates Highest in the South and West

Rural poverty rates were highest in the South and West (fig. 4; see appendix, pp. 118-119, for definition of regions). In the Northeast and Midwest, rural poverty rates were lower than the national average and differed less from the regions' urban poverty rates. Just over half of the rural poor (51.6 percent) lived in the South. *[Mark Nord, 202-694-5433, marknord@econ.ag.gov]*

Figure 4

Poverty rates, by region and residence, 1996

Rural poverty rates are highest in the South and West



Source: Calculated by ERS using data from the March 1997 Current Population Survey.

The Socioeconomic Well-Being of Rural Children Lags that of Urban Children

Larger shares of rural minority children were poor than White children in 1996. They were more likely than White children to live in families headed by single parents or without an earner and have less educated parents, all of which substantially increased their chances of poverty. Rural minority children also lived in families that relied on social welfare programs more than their White counterparts. Thus, they will be more affected by welfare reform than White children.

In 1997, just over 14 million of 70.7 million children under the age of 18 in the United States lived in rural areas. The economic circumstances under which children live are of interest to policymakers because children make up about a quarter of the urban and rural populations, and represent one of the most vulnerable segments of the Nation's population. Additionally, the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 requires that the U.S. Bureau of the Census provide each State with a current annual estimate of its young child (under 6 years old) poverty rate; if the rate has increased by more than 5 percent over the previous year's rate and that increase is attributable to the effects of welfare reform, the State must submit a corrective action plan. While rural children are less likely to be minorities than urban children, poverty rates remain much higher for rural minority children than for rural White children.

Minority Children Made Up a Smaller Share of Rural than Urban Children

A comparison of urban and rural children shows marked differences in their socioeconomic well-being, region of residence, and racial/ethnic background, but considerable similarity in their age, family structure, parental education, and absence of a wage-earner (app. table 15).

The well-being of rural children lagged that of urban children (fig. 1). The poverty rate for rural children was 24 percent, compared with 22 percent for urban children (see box, below, for definition of child poverty rate). Further, over half of rural children lived in families with income between 100 and 300 percent of the poverty level, compared with just over one-third of urban children. Conversely, the share of children living in higher income families (over 300 percent of the poverty level) was much larger for urban (39 percent) than rural children (25 percent).

Factors, such as region of residence and family characteristics, help explain the marked socioeconomic differences between urban and rural children. The poverty rate for all urban and rural children was highest in the South and the West at about 25 percent in both regions for urban children and about 30 percent in both regions for rural children. The largest share of children in both rural and urban areas, like the population as a whole, resided in the South (fig. 2). However, the share of rural children living in the South (43 percent) was considerably larger than the share of urban children living in that region (32 percent). Also, a much larger share of rural than urban children resided in the Midwest—30 percent compared with 22 percent. Where children live makes a difference in the services and support available to their families, and job opportunities may be more limited in some areas than others.

How Child Poverty Is Defined

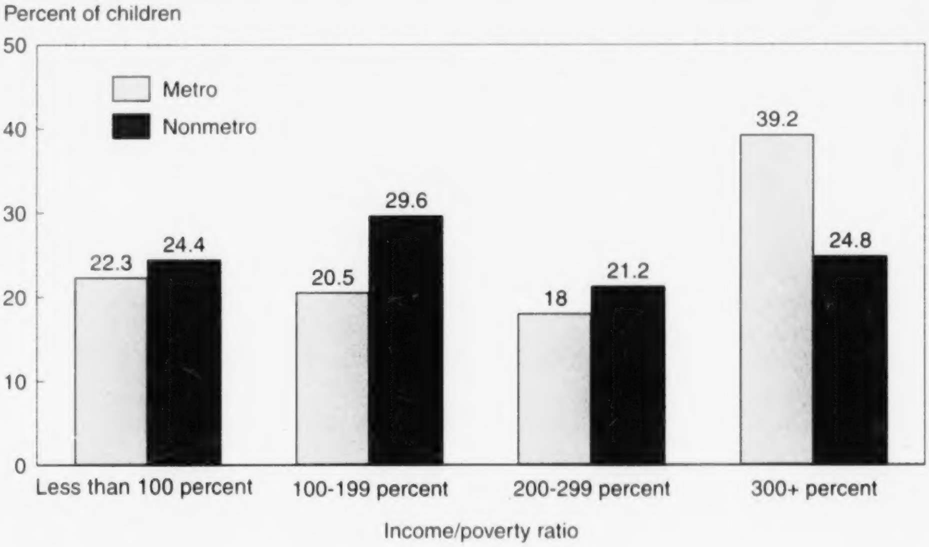
The Current Population Survey (CPS) assigns the poverty rate of the primary family to children living in a related subfamily (see appendix, p. 116, for definition of family. However, CPS provides a variable that permits computation of the poverty rate for related subfamilies. In this article, the poverty rates for children in related subfamilies are the poverty rates for that family rather than those assigned to them from the primary family.

A related subfamily is defined as a married couple with or without children, or one parent with at least one never-married child under age 18 living in a household and related to, but not including, the householder or spouse. One example of a related subfamily is a young married couple sharing the home of the husband's or wife's parents.

Figure 1

Ratio of family income to poverty level for children, by residence, 1996

Rural children are much more likely than urban children to live in lower income families

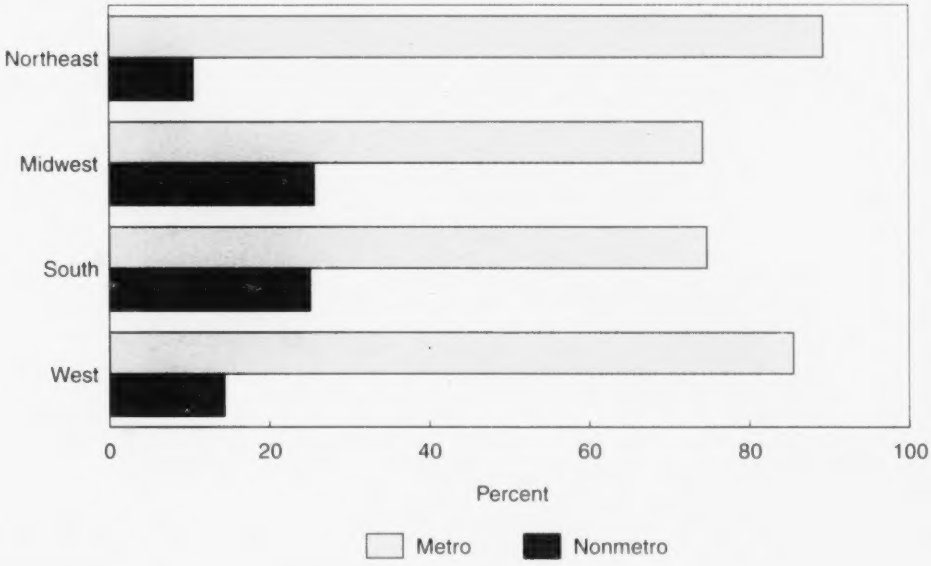


Source: Calculated by ERS using data from the March 1997 Current Population Survey.

Figure 2

Distribution of children, by region of residence, 1996

Larger shares of children lived in rural areas in the Midwest and South



Source: Calculated by ERS using data from the March 1997 Current Population Survey.

Family structure plays an important role in a child's economic welfare. The chances of poverty are likely to be higher for children in single-parent families than for children in two-parent families. About half of rural children in single-parent families were poor, compared with 12 percent for rural children in two-parent families.

In addition to family structure, parental educational attainment, which influences employment opportunities and earnings, plays an important role in family poverty status. For all rural children living in two-parent families, the chances of poverty increased sharply if only one or neither parent had finished high school. Forty-four percent of rural children in two-parent families whose parents had not completed high school were poor, while the chances of poverty for rural children in single-parent families whose parent had not finished high school climbed to 72 percent.

As one would expect, living in a family with no wage earners strongly influences a child's poverty status. Urban and rural children in families with no earners had the highest poverty rates of all children, and the poverty rate for urban children in such families was higher (92 percent) than that of rural children in similar families (87 percent).

The racial/ethnic makeup of urban and rural children differed markedly (fig. 3). Minority groups represented a smaller proportion of the rural child population (24 percent) than of the urban child population (38 percent). However, Native American children made up a somewhat larger share of the rural than urban child population, while Hispanic children made up a larger share of the urban than rural child population.

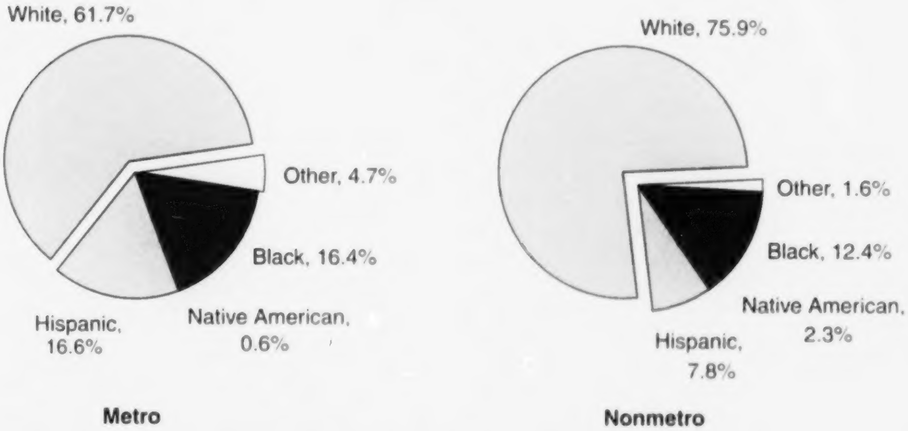
Poverty Is More Prevalent Among Rural Minority Children

In 1996, the poverty rate for all rural children was 24 percent (table 1). However, poverty rates were much higher for rural minority children than for rural White children (17 percent). Rural Black children's poverty rates were the highest (50 percent), while Hispanic and Native American children poverty rates exceeded 40 percent. In addition, severe poverty (family income below 50 percent of the poverty level) for minority children was disproportionally high. Thirty percent of rural Black children lived in conditions of severe poverty, compared with only 8 percent of rural White children. Rural White children were much more likely than rural minority children to live in higher income families. Thirty per-

Figure 3

Children, by race/ethnicity and residence, 1996

Rural children are less likely than urban children to belong to a minority group



Source: Calculated by ERS using data from the March 1997 Current Population Survey.

cent of rural White children lived in families with income over 300 percent of the poverty level, compared with just under 10 percent of minority children.

Poverty rates for young children (under 6 years old) were much higher among rural minority children than for rural White children. The poverty rate for rural young Black children was about three times higher than the poverty rate for young White children, while the poverty rates for rural Hispanic and Native American children were twice that of White children. The higher poverty rate among young children may be influenced by the fact that the number of family members available for the labor force is sometimes limited due to the need to care for a young child, and in many rural areas adequate child day care may be scarce.

Rural minority children tended to be concentrated regionally. About 89 percent of rural Black children lived in the South, while almost half (45 percent) of Native American children lived in the West. Rural Hispanic children largely resided in two regions—the South (47 percent) and the West (44 percent). Over one-half of rural Black children living in the South were poor, compared with 19 percent of rural White children in the South. Forty-nine percent of rural Hispanic children living in the West and 46 percent of rural Hispanic children living in the South were poor. Forty-one percent of rural Native American children in the West were poor.

The chances of poverty for rural minority children in single-parent families were much higher than for rural White children (45 percent). Hispanic children in single-parent families had the highest chances of poverty (75 percent) followed closely by Black children (68 percent). However, only one-quarter of rural Hispanic children lived in single-parent families, compared with almost two-thirds of rural Black children. For these children, something other than family structure is influencing their high poverty rate, such as being members of illegal immigrant families.

Table 1

Poverty rates and distribution of family income for rural children, by race/ethnicity, 1997

Rural minority children have much higher poverty rates than rural White children

Item	White	Black	Hispanic	Native American	All
			Thousands		
Number of children	10,776	1,767	1,104	331	14,192
			Percent		
Total poor	17.3	50.0	45.9	40.5	24.4
Family income as percentage of poverty level:					
Less than 50	7.6	29.7	14.5	21.4	11.3
50-74	4.8	9.4	16.7	11.5	6.7
75-99	4.9	10.9	14.7	7.6	6.4
100-124	6.6	9.3	10.2	9.7	7.2
125-149	7.1	9.9	8.6	8.5*	7.5
150-174	8.3	9.3	7.2	6.0*	8.2
175-199	7.0	4.1	7.3	7.6*	6.7
200-299	24.2	9.1	11.5	17.8	21.2
300+	29.5	8.3	9.3	9.9	24.8

*Weighted number, fewer than 30 cases reported.

Source: Calculated by ERS using data from the March 1997 Current Population Survey.

Rural Hispanic children in two-parent families whose parents had not finished high school were particularly disadvantaged, experiencing a poverty rate of 53 percent, and nearly half of rural Hispanic children lived in these families. Rural Black and White children in such families had poverty rates of 41 and 36 percent, respectively, with much smaller shares of each of the two groups living in these families.

Minority children in a single-parent family whose parent had not completed high school had very high poverty rates. About three out of four of rural Hispanic and Black children in these families were poor, and more than one-third of the children in these two groups lived in these families. Although they had the lowest poverty rate of all children in single-parent families whose parent had not completed high school, rural White children's poverty rate was high at 64 percent. However, slightly less than 20 percent of rural White children lived In these families.

Further, rural minority children more often lived in families with no earners than rural White children (5 percent). Nineteen percent of Black children, 8 percent of Hispanic, and 12 percent of Native American children lived in no earner families in 1996. These children all had high poverty rates that exceeded 90 percent. Although the poverty rate for rural White children in similar families was considerably lower than the poverty rate for minority children, it was very high at 79 percent.

Additional analysis indicates that differences in family structure and presence or absence of a family wage earner account for nearly three-quarters of the difference in rural White/Black child poverty rates. However, these characteristics play a lesser role in explaining differences in White/Hispanic and White/Native American child poverty rates because their family structure and family wage-earner status more closely resemble those of rural White children.

Social Welfare Programs More Important to Minority Children

Social welfare programs contribute to the well-being of children by providing cash or in-kind assistance to needy families. In 1996, 1.2 million rural children lived in families participating in Aid to Families with Dependent Children (AFDC), the guaranteed Federal assistance program for dependent children, which was replaced with the Temporary Assistance to Needy Families (TANF) Program in 1996. The TANF program provides time-limited benefits to needy families, mostly headed by single-parents, and provides assistance in finding employment for the parents. While the hope is that more parents will be able to meet their families' needs through employment, some families could possibly face economic hardship resulting from the discontinuation of benefits when time limits expire.

Larger shares of rural Black and Native American children lived in families receiving AFDC benefits than White or Hispanic children (fig. 4). This is to be expected since rural Black and Native American children were more likely than Hispanic or White children to live in single-parent families.

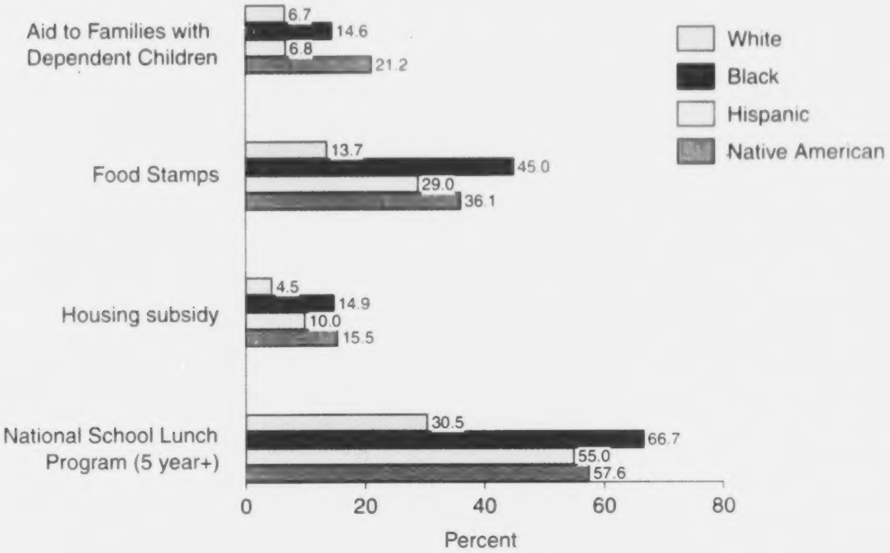
Changes in the TANF program will trigger changes in the food stamp program, a program with much higher child participation rates than AFDC. Among the most important changes that will affect children are the reduction of food stamp benefits from 103 to 100 percent of the Thrifty Food Program and the restriction of food stamp eligibility for many legal immigrants. Changes in the food stamp program will potentially affect 2.8 million, or 20 percent of rural children. Furthermore, rural Black and Native American children will be disproportionately affected. Forty-five percent of rural Black children and 36 percent of rural Native American children lived in families that receive food stamps. The share of rural Hispanic children in families receiving food stamps was also high at 29 percent.

The families of rural minority children also relied on other government assistance programs more than the families of White children. Children in rural Black and Native American families had the highest participation rates in the housing subsidy program that helps needy families pay their rent. Fifteen percent of rural children in both these groups lived in families participating in this program. The reduced food stamp benefits associated with the implementation of TANF may cause some recipients to have difficulty paying

Figure 4

Participation rates in selected social welfare programs for nonmetro children, by race/ethnicity, 1996

Rural minority children participate in most social welfare programs at a higher rate than White children



Source: Calculated by ERS using data from the March 1997 Current Population Survey.

their share of their rent because they will need more of their income to buy food. Finally, participation rates in the national school lunch program for rural children over 5 years old were very high among all four racial/ethnic groups. Well over half of rural Black, Hispanic, and Native American children, compared with about a third of White children, received free or reduced-price lunches from this feeding program in 1996. *[Elizabeth M. Dagata, 202-694-5422, edagata@econ.ag.gov]*

New Indicator Reveals Similar Levels of Food Security in Rural and Urban Households

A new survey and measurement scale developed by USDA and the Department of Health and Human Services provides a tool for monitoring food security—the extent to which households consistently and dependably get enough food for an active and healthy life—in the United States. The prevalence rates of food security, food insecurity, and hunger are similar in rural and urban households. Single-parent families and racial and ethnic minorities have higher rates of food insecurity and hunger.

Americans are proud of the agricultural abundance of their country. Nonetheless, government food assistance programs and private charitable food banks, food pantries, and soup kitchens reflect a general concern that not every citizen always has enough to eat. The type of hunger of concern in the United States is different in character from the prolonged episodes of famine and starvation that occasionally afflict citizens in less industrialized countries. Hunger in the United States is intermittent and often hidden. People skip meals or reduce the quality and variety of foods when household food supplies become depleted. In extreme situations, children are affected, but malnutrition and growth retardation due to undernutrition are rare.

USDA's food assistance programs are intended not only to prevent hunger, but also to assure that all citizens—and especially all children—have regular access to the quantity and quality of food needed for an active, healthy life. To gauge the effects of these programs and to target them more effectively, it is important to be able to measure the extent of household food insecurity as well as hunger in the Nation. USDA and the Department of Health and Human Services have developed a new survey to monitor food insecurity and hunger in the United States (see box, "Developing a New Measuring Tool: The Food Security Survey," p. 96). Households are food secure when they have assured access in socially acceptable ways to enough food for an active, healthy life. They experience food insecurity whenever that access is limited or uncertain. As food insecurity increases in severity, the quality and variety of meals is reduced and food intake may become irregular. At still more severe levels, insufficient or irregular food intake results in periods of hunger for at least some family members. In households with children, adults usually restrict their own food intake first to provide enough food for the children. Thus, children usually do not experience hunger except in households with severe levels of food insecurity, including more severe adult hunger.

Most Households Are Food Secure

A large majority of rural households were food secure during the year prior to April 1995 (fig. 1). Nearly 80 percent gave no indications at all of worries about, or difficulty in, getting enough food. An additional 8 percent responded affirmatively to just one or two questions of the scale, indicating some level of uncertain or limited access to food, but not sufficient to be classified as food insecure.

Food Insecurity Rates Similar in Rural and Urban Areas, Higher for Minorities

The overall prevalence of food insecurity was essentially the same in rural and urban households (table 1). In both residence categories, about 12 percent of households were classified as food insecure. These households reported at least three indicators of food insecurity, most commonly that (1) they worried whether their food would run out before they got money to buy more, (2) the food they bought didn't last and they didn't have money to get more, and (3) they couldn't afford to eat balanced meals. Within urban areas, food insecurity was more prevalent in central cities (16.1 percent) than in suburban areas (9.5 percent).

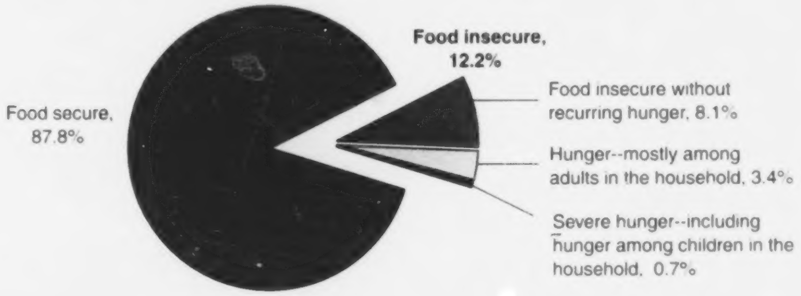
Regionally, food insecurity was highest in the rural West (14.9 percent) and lowest in the rural Northeast (9.7 percent). Rural-urban differences were not substantial in any region.

Food insecurity was almost three times as prevalent among rural Blacks as among rural Whites. For rural Hispanics, the rate was about twice that of Whites. These differences reflect the higher poverty rates of racial and ethnic minorities (see "Rural Poverty Rate Unchanged," p. 81). For Blacks and Whites, food insecurity was more prevalent in rural than in urban areas, while for Hispanics, the reverse was true. The lower level of food

Figure 1

Food security, food insecurity, and hunger in rural households, 1995

While a large majority of rural households are food secure, access to food is limited or uncertain for some, including a few with repeated experiences of hunger because they couldn't afford enough food



Source: Prepared by ERS using data from the Current Population Survey Food Security Supplement, April 1995.

Table 1

Percentage of households experiencing food insecurity, 1995

Levels of food insecurity were very similar in rural and urban households; food insecurity was most prevalent among racial and ethnic minorities and in single-parent families with children

Category	Nonmetro	Metro	U.S. total
		Percentage of households	
All households	12.2	11.9	11.9
Census region:			
Northeast	9.7	10.4	10.3
Midwest	10.3	10.8	10.6
South	13.3	12.3	12.5
West	14.9	13.6	13.8
Race and ethnicity (of household head):			
White non-Hispanic	10.3	8.1	8.7
Black	28.3	23.5	24.2
Hispanic	21.3	26.2	25.7
Household structure:			
Two-parent families with children	12.9	11.1	11.5
Single-parent families with children	32.8	32.2	32.3
Multiple-adult households, no children	6.9	6.3	6.4
Single men living alone	13.3	12.9	13.0
Single women living alone	10.2	11.4	11.1
Age:		Percentage of persons[1]	
0-17	20.4	19.7	19.8
18-64	12.9	11.9	12.1
65 and over	5.5	5.5	5.5

[1] Food security is determined at the household level. In the age breakdown, the numbers represent the percentage of persons in each age category living in households classified as food insecure.

Source: Prepared by ERS using data from the Current Population Survey Food Security Supplement, April 1995.

insecurity among rural Hispanics is unexpected because they had a substantially higher poverty rate than did urban Hispanics. The reasons for this difference are not known.

Almost One of Every Three Single-Parent Families Experiences Food Insecurity

Food insecurity was much higher in single-parent families with children than in any other household type. Nationally, nearly one-third of such households experienced food insecurity sometime between April 1994 and April 1995, and this proportion was about the same in rural and urban areas. The lowest rate of food insecurity was in multiple-adult households with no children present (6.9 percent in rural areas and 6.3 percent in urban areas). The incidence of food insecurity in two-parent households with children (12.9 percent in rural areas and 11.1 percent in urban areas) was nearly double that of similar households without children but far below that of single-parent families. Food insecurity was more prevalent among men living alone than among women living alone, even though the poverty rate for women living alone was substantially higher than that for men living alone. The rural-urban differences in food insecurity were significant only for two-parent families with children (1.8 percentage points higher in rural areas) but not for other household types.

Children are much more likely than adults to live in households that experience food insecurity, while the elderly are less than half as likely as working-age adults to live in such households, and this was true in both rural and urban areas. There is some concern, however, that the questions in this survey may not adequately identify and measure food insecurity among the elderly. Problems not measured by the food insecurity scale, such as mobility limitations and restricted capacity and facilities for food preparation, pose additional challenges for some elderly.

Poverty-Related Hunger Reported in 4 Percent of Rural Households

In about one-third of food insecure households—those in which food shortages were more serious or prolonged—food intake was curtailed to the extent that household members repeatedly experienced hunger. These households report experiences and behaviors associated with more severe levels of food insecurity. Adults reported eating less than they felt they should and cutting and skipping meals repeatedly due to lack of food or money to buy food. Households with children reported inability to feed the children balanced meals and reliance on only a few kinds of low-cost food to feed the children because they were running out of money to buy food. At least some household members, mainly adults, in 4.1 percent of U.S. households experienced such hunger during the year prior to the survey, and this proportion was virtually identical in rural and urban areas (table 2).

The pattern of the incidence of hunger across regions, racial-ethnic groups, household types, and age groups follows closely that of food insecurity. The proportion of households with hunger exceeded 10 percent for rural Blacks and for single-parent families with children in both rural and urban areas. Rural-urban differences in the prevalence of hunger were generally not great in any category analyzed, and were statistically significant only for Whites (higher in nonmetro areas) and for the Midwest region (higher in metro areas).

Less than 1 Percent of Rural Households Report Indicators of Severe Hunger

Severe hunger, characterized by adults going whole days without eating, cutting the size of children's meals, and children being hungry because there is not enough money to buy food, is rare but unfortunately not unheard of in U.S. households. This level of food insufficiency is estimated to occur in 0.8 percent of households—or about 815,000 households—nationwide, with similar prevalence levels in rural and urban areas (table 3). As was observed for less severe levels of food insecurity, racial and ethnic minorities and single-parent families with children are at higher risk of severe hunger than other households.

Table 2

Percentage of households with one or more members experiencing poverty-related hunger, 1995

One or more household members experienced repeated, poverty-related hunger in 4.1 percent of rural households

Category	Nonmetro	Metro	U.S. total
		Percentage of households	
All households	4.1	4.2	4.1
Census region:			
Northeast	3.4	3.4	3.4
Midwest	3.3	4.0	3.8
South	4.3	4.3	4.3
West	5.4	4.9	5.0
Race and ethnicity (of household head):			
White non-Hispanic	3.3	2.8	3.0
Black	10.6	9.2	9.4
Hispanic	7.7	8.0	8.0
Household structure:			
Two-parent families with children	3.1	2.6	2.7
Single-parent families with children	11.1	11.2	11.1
Multiple-adult households, no children	2.5	2.4	2.4
Single men living alone	6.5	6.6	6.6
Single women living alone	3.8	4.4	4.3
Age:		Percentage of persons[1]	
0-17	6.4[2]	6.1[2]	6.2[2]
18-64	4.0	4.0	4.0
65 and over	1.9	1.7	1.8

[1] Hunger is measured at the household level. In the age breakdown, the numbers represent the percentage of persons in each age category living in households that registered hunger.

[2] Children usually do not experience hunger except in households in which adults experience more severe and prolonged hunger (see table 3). Thus, the prevalence rates for children shown in this table should be interpreted as the proportion of children living in households with hunger among adults. Most of these children were eating diets of reduced quality.

Source: Prepared by ERS using data from the Current Population Survey Food Security Supplement, April 1995.

Table 3

Percentage of households with severe poverty-related hunger, 1995

Less than 1 percent of rural households reported incidents of severe hunger [1]

Category	Nonmetro	Metro	U.S. total
		Percentage of households	
All households	0.7	0.9	0.8
Census region:			
Northeast	.8	.7	.7
Midwest	.4	.7	.6
South	.6	.9	.8
West	1.3	1.1	1.1
Race and ethnicity (of household head):			
White non-Hispanic	.6	.6	.6
Black	1.6	2.0	2.0
Hispanic	.7	1.6	1.5
Household structure:			
Two-parent families with children	.2	.5	.4
Single-parent families with children	1.5	2.0	1.9
Multiple-adult households, no children	.5	.5	.5
Single men living alone	1.6	1.6	1.6
Single women living alone	1.0	1.0	1.0
Age:		Percentage of persons [2]	
0-17	.6 [3]	1.1 [3]	1.0 [3]
18-64	.6	.8	.8
65 and over	.2	.3	.3

[1] Indications of severe hunger include adults going whole days without eating, cutting the size of children's meals, and children being hungry because their parents couldn't afford enough food.

[2] Hunger is measured at the household level. In the age breakdown, the numbers represent the percentage of persons in each age category living in households that registered severe hunger.

[3] In households with severe hunger, most children also experience hunger.

Source: Prepared by ERS using data from the Current Population Survey Food Security Supplement, April 1995.

Number of Hungry Children Is Difficult to Estimate

Estimating the proportion of children who experience poverty-related hunger is somewhat indirect and uncertain. Because of the importance of children's diets for their cognitive and physical development, research continues on this important task. Almost all of the children in households with severe hunger (0.6 percent of children in rural areas; table 3) experienced poverty-related hunger during the previous year. However, that number understates the prevalence of child hunger. Even in households in which adult hunger is less severe, the quality of children's diets is often reduced, and indicators of child hunger are reported in some cases. It is likely, then, that most of the 6.4 percent of children in rural households with adult hunger (including moderate and severe hunger) were eating diets of reduced quality (table 2), and more than 0.6 percent were hungry from time to time because their parents were unable to afford enough food. *[Mark Nord, 202-694-5433, marknord@econ.ag.gov; Margaret Andrews, 202-694-544, mandrews@econ.ag.gov; Gary Bickel, 703-305-2125, gary_bickel@fcs.usda.gov]*

Developing a New Measuring Tool: The Food Security Survey

In April 1995, the Census Bureau, under sponsorship of USDA's Food and Nutrition Service, surveyed a nationally representative sample of 44,730 households about their food expenditures, sources of food assistance, food security, and hunger. The survey was carried out as a supplement to the monthly Current Population Survey (see appendix, p. 115, for information about the Current Population Survey). The questionnaire design drew on previous efforts by academic and advocacy organizations to measure food security and hunger in smaller populations. The food insecurity and hunger-related questions asked about a wide range of perceptions and behaviors that have been reported by households known to be having difficulty meeting their food needs. The Census Bureau's Center for Survey Methods Research revised and improved the questionnaire based on focus group discussions, a pretest, and a field test.

Household food security status ranges from food secure at one extreme to severe hunger at the other. Based on a thorough statistical analysis of the data from the Food Security Supplement, 18 questions were identified as forming a valid and reliable scale measuring the severity of food insecurity and hunger across this range. All questions referred to the 12 months prior to the survey and included a qualifying phrase reminding the respondent to report only those occurrences due to limited financial resources. Restrictions to food intake due to dieting or busy schedules were excluded. Examples of questions across the range are:

[**Light end of scale**] *"The food we bought just didn't last,-and we didn't have money to get more." Was that often, sometimes or never true for you in the last 12 months?*

[**Middle of scale**] *In the last 12 months did you ever cut the size of your meals or skip meals because there wasn't enough money for food?*

[**Severe end of scale**] *In the last 12 months did you ever not eat for a whole day because there wasn't enough money for food?*

(The full questionnaire is included in the summary report listed below.)

Based on responses to these 18 questions, each household was assigned a scale score measuring the severity of food insecurity experienced over the previous year. For analytic and policy purposes, each household was then classified into one of four categories based on their food security scale score: (1) food secure; (2) food insecure with no hunger evident; (3) food insecure with moderate hunger; and (4) food insecure with severe hunger (including adults going whole days without food and hunger among children in households with children). Since the households in the survey were a representative sample of U.S. households, the prevalence of food security, food insecurity, and hunger can be estimated at the national level and for major regions and subpopulations.

USDA Reports on Food Security and Hunger

The following reports on the Food Security Measurement Project are available from USDA's Food and Nutrition Service:

Household Food Security in the United States: Summary Report

Household Food Security in the United States: Technical Report

Guide to Implementing the Core Food Security Module

Contact the Office of Analysis and Evaluation, Food and Nutrition Service, U.S. Department of Agriculture, 3101 Park Center Drive, Alexandria, VA 22302. Or download the reports from the FNS worldwide web site at http://www.usda.gov/fcs/research.htm

Housing Problems Differ Across Types of Rural Households

Government policy recognizes housing as a basic need, and home ownership as desirable. Minimum standards for appropriate housing include being safe and sanitary, of sufficient size, and affordable. Households whose homes fall short of necessary or desirable standards are concentrated in certain population segments. However, the reasons for these housing problems differ widely among groups and between nonmetro and metro areas. Physical inadequacies are most frequently in the housing of nonmetro Black households, particularly those who are poor. But crowding is the principal housing problem for both nonmetro and metro Hispanic households.

While most housing-related issues span rural and urban America, significant rural-urban differences exist. These include differences in the housing stock, population characteristics, and markets for housing and home mortgages. Recognizing these differences will benefit public policy actions. Recent changes in Federal housing programs have generally added flexibility, increased the role of State and local governments, and emphasized the inclusion of segments of the population and geographic areas that were deemed underserved by existing housing and home mortgage markets. There is evidence that the housing situation has been improving for both targeted and nontargeted segments of the population.

Homeownership Is Rising as Housing Becomes More Affordable

The housing market has been on a roll in both rural and urban America. This is shown by indicators of physical quality, adequacy for the residents' needs, affordability, and homeownership. The rate of homeownership is at an all-time high, with nearly two-thirds of all U.S. households and three-fourths of rural households owning their home in 1995 (app. table 17). The rate of homeownership in both nonmetro and metro areas has increased steadily since 1994. Additionally, the marketplace is very active, as both housing sales and new home construction are at near-record levels. And, on average, housing has seldom been more affordable. In the first quarter of 1998, U.S. median household income was 34 percent more than needed to afford the median-priced home. According to this widely used indicator, housing has not been so affordable since 1973.

While both nonmetro and metro households share in these positive trends, housing problems disproportionately continue to affect some groups more than others. Most likely to experience housing disadvantages are Blacks and other racial minorities, Hispanics, and those with low incomes regardless of race or ethnicity. Some housing problems for these groups occurred more frequently in rural areas, while others were more often in urban areas.

However, the housing situation for these groups is also improving. According to a Harvard University study, the recent growth rate of minority homeownership has exceeded that for other households. While minorities are 17 percent of all homeowners, they accounted for 42 percent of new homeowners between 1994 and 1997. Home mortgage lending in recent years also reflects this trend. The growth in mortgage lending to minorities and low- or moderate-income families substantially exceeds that for other borrowers. While it is nearly certain that rural minorities are sharing in this trend of rapidly growing homeownership, specific rural data are not available.

Housing Issues Vary Across Population Groups

Housing is generally recognized as better if it has no physical deficiencies, contains basic facilities, has adequate space, is less costly, and is owned by the occupant. Most indicators of housing quality show that the incidence of housing problems differs widely among population groups and by rural and urban location, meaning that the various problems are not concentrated within the same populations.

Homeownership Is Prevalent Among Rural Household Groups

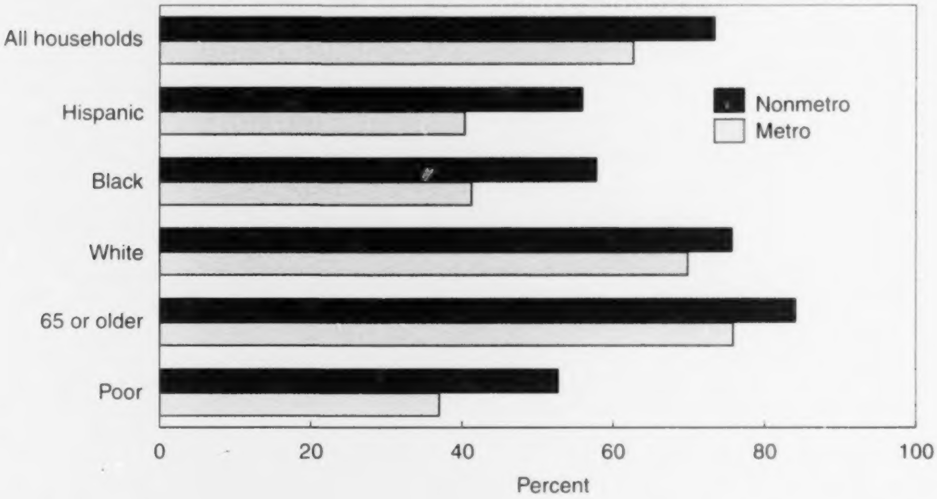
Homeownership usually benefits both the homeowner and the general public. Public policy is clearly geared toward promoting greater homeownership, as demonstrated by government tax policies and program initiatives, and indeed the ownership rate is trending upward.

The rate of homeownership in 1995 was higher among nonmetro than metro households for each of the population groups (fig. 1). Ownership was the dominant pattern for all nonmetro groups, but not for metro Black, Hispanic, or poor households. While generally

Figure 1

Households who own their homes, 1995

In both nonmetro and metro areas, minority and poor households are the least likely to own their homes



Source: Calculated by ERS from 1995 American Housing Survey data.

both nonmetro and metro poor were among the least likely to be homeowners, this was not true for the poor who were also elderly (app. table 17).

Households that rent, plus new households formed by those leaving their parents' and other households and immigrants, are the group from which new homeowners must come. A disproportionate share of these households are poor, Black, or Hispanic. Even among households that are not in poverty, Black and Hispanic households are the least frequent owners. While nearly 80 percent of nonpoor White households in nonmetro areas owned their home, comparable figures were only 62 percent and 68 percent, respectively, for Hispanic and Black households.

Hispanics Are More Likely to Live in Crowded Homes

A home is generally considered crowded when the number of residents exceeds the number of rooms. The incidence of crowding is highest for Hispanic-headed households, as one of seven live in crowded conditions (fig. 2). A higher share of the Hispanic population live in crowded housing, partially because greater crowding tends to be associated with larger households. The relationship of household size to crowded conditions also helps to explain the crowding percentages for other population categories. For instance, the homes of elderly households who usually have only one or two persons are unlikely to be crowded. In fact, the homes of one-person households will never have more persons than rooms because every housing unit has at least one room.

Rural Homes More Often Lack Complete Plumbing

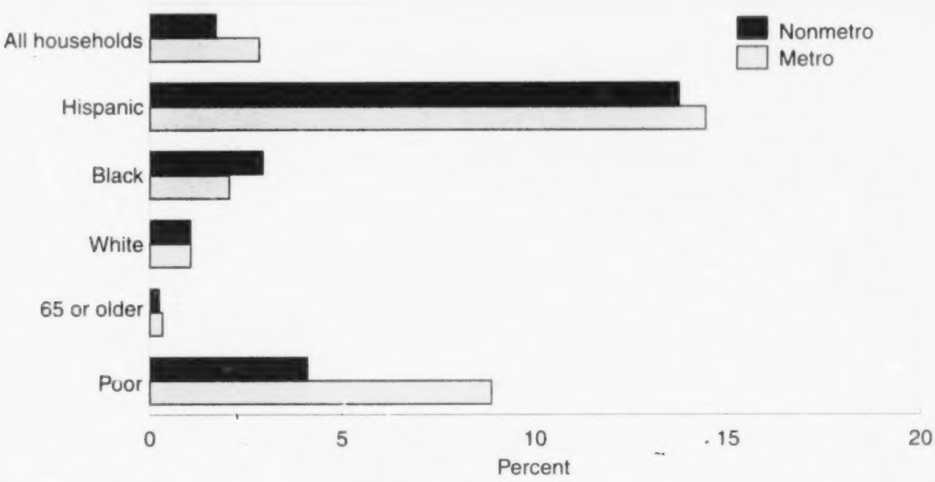
Once used as the principal indicator of housing quality, housing that lacks complete plumbing facilities for the exclusive use of the residents is a problem for under 2 percent of both nonmetro and metro households, but is a problem more frequently in rural areas (fig. 3). This contrasts to 1960, when 30 percent of nonmetro and 7 percent of metro homes lacked complete plumbing facilities. Most residents of homes that fail this quality indicator today have access to a full bathroom that is also used by another household. Poor and Black rural households are the most likely to have such a housing problem.

730

Figure 2

Households living in crowded homes, 1995

The homes of Hispanic households are most likely to be crowded

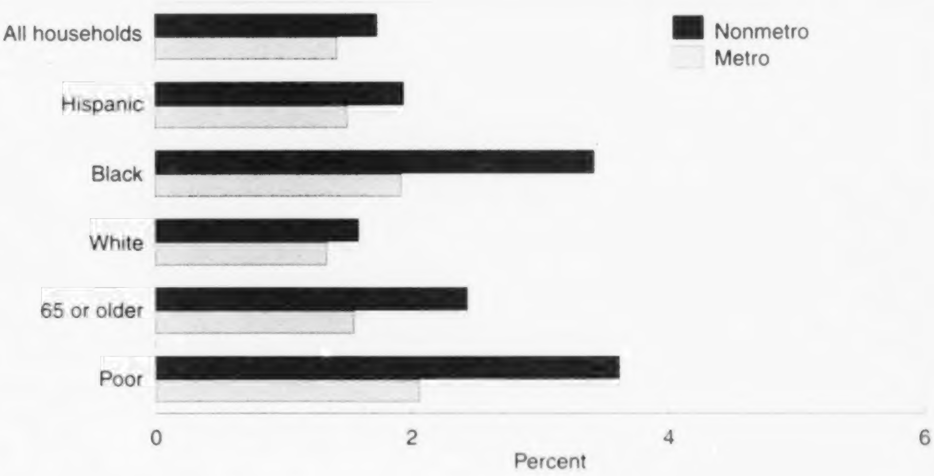


Source: Calculated by ERS from 1995 American Housing Survey data.

Figure 3

Households whose homes lack complete plumbing facilities, 1995

Nonmetro homes of Black and poor householders most often lack full plumbing



Source: Calculated by ERS from 1995 American Housing Survey data.

Rural Homes Have More Physical Problems

The most widely used index of physical inadequacy combines the plumbing indicator with information about the adequacy of heating and electric facilities, maintenance items like leaking roofs and holes in walls, kitchen facilities, and the condition of public hallways and other common areas in multi-unit housing. By this measure, 6 percent of nonmetro homes and 4 percent of metro homes were considered moderately inadequate, and another 2 percent of each were severely inadequate in 1995 (fig. 4). The combined incidence of moderate and severe physical inadequacy is 24 percent for the homes of all nonmetro Black households, and 34 percent for those who were also poor. While the homes of nonmetro poor and Hispanic households were on average better than those of Black households, they were twice as likely as all nonmetro homes to be physically inadequate.

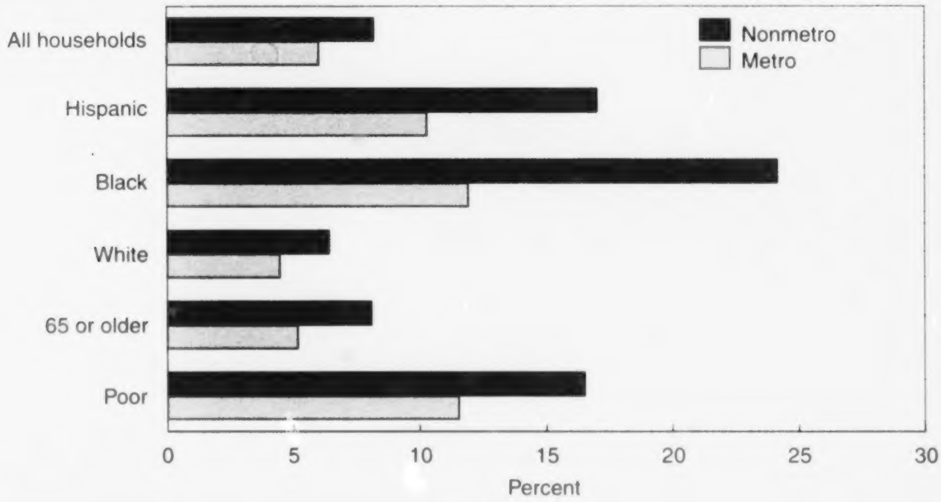
Excessive Housing Expenses Most Often Hurt the Poor

Over 2 percent of nonmetro households had housing expenses deemed excessive because they consumed over half of the household's income. Twice as many nonmetro homes would have been labeled as too expensive, if we had instead used a 30-percent threshold. Not surprisingly, the poor were most likely to spend a large part of their income on housing (fig. 5). Housing expenses were more of an urban than rural problem for all of the population groups considered. And, within each of these groups, excessive housing expenses were mostly a problem for the poor. For instance, 34 percent of poor nonmetro Black households had excessive housing expenses, compared with only 2 percent of Black households not in poverty.

Figure 4

Households whose homes are physically inadequate, 1995

The homes of nonmetro minority and poor households are most likely to have significant physical problems

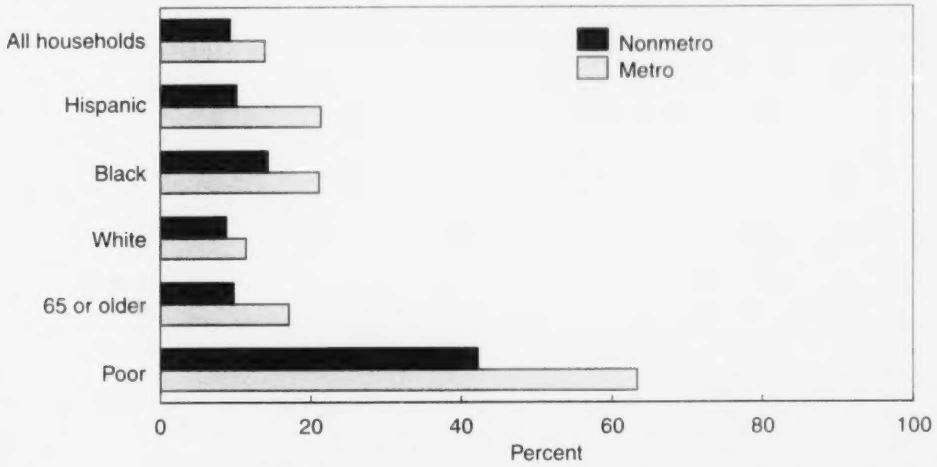


Source: Calculated by ERS from 1995 American Housing Survey data.

Figure 5

Households whose housing expenses exceed half of their income, 1995

Housing consumes the bulk of many poor families' budgets



Source: Calculated by ERS from 1995 American Housing Survey data.

Indicators Fail to Reflect Current Housing Needs of Elderly

The housing needs of older persons frequently differ from those of other households. The more important housing issues for this rapidly growing population, which are highlighted by the data presented here, stem from the particularly high rate of homeownership. The 65-and-older homeownership rates—84 percent in nonmetro and 76 percent in metro areas—were well above the overall levels in 1995. This raises numerous important housing issues for this aging population of homeowners that common indicators fail to reflect. Some of these issues include housing design, modification, and location that will accommodate independent living at an affordable cost. Whether emanating from the government or private sector, programs and innovations designed to extend the period of independent living for older persons, particularly in rural areas, should be targeted largely at a population of homeowners, not renters. The median home equity of elderly nonmetro homeowners is over $60,000, as more than 85 percent own their home free and clear of mortgage debt. Various types of reverse mortgages to tap home equity without selling the home are currently available, but have been used only sparsely. Rural communities that will be most affected by these housing issues include those with larger shares of elderly population and communities functioning as destinations for retirees.

Diverse Rural Housing Needs Require Diverse Programs

Addressing a number of different housing needs requires access to a mix of housing programs that offer considerable flexibility. In fact, numerous programs address such specific issues as home mortgage availability, the low-income housing stock, and rental assistance. And recent changes in Federal housing programs reduce operating restrictions, making it possible for applications at the State and local level to more appropriately address specific needs. *[James Mikesell, 202-694-5432, mikesell@econ.ag.gov]*

Minority Hired Farmworkers Earn About the Same as Their Nonminority Counterparts

Minority workers have become almost one-half of the hired farmworkers in the United States. They are more likely than White farmworkers to be male, older, married, less educated, employed in crop production, and to experience wider fluctuations in employment during the year. Unlike all minority wage and salary workers' earnings, minority hired farmworkers' earnings do not differ from those of White workers.

Hired farmworkers, although less than 1 percent of all wage and salary workers, are over 30 percent of the production-agricultural work force (operators and unpaid family members account for the other 70 percent). They provide the labor at critical production times when labor demand exceeds what can be supplied by farm operators and their family members.

An annual average of 889,000 persons, including 424,000 minority workers age 15 and over, did hired farmwork each week as their primary employment during 1997, according to data from the Current Population Survey (CPS) earnings microdata file. Hired farmworkers include persons who reported their primary employment during the week as farm managers (9 percent), supervisors of farmworkers (4 percent), nursery workers (3 percent), and farmworkers engaged in planting, cultivating, and harvesting crops or attending to livestock (84 percent). Some of these hired farmworkers (9 percent) work in jobs in agricultural services (establishments primarily engaged in performing farm labor and management services, soil preparation services, and animal and crop services for others on a contract or fee basis).

The average weekly number of hired farmworkers in 1997 (889,000) was statistically unchanged from 1996. However, the number of hired farmworkers in 1997 was one of the highest during the 1990's.

Minorities Account for Nearly Half of Hired Farmworkers

Over the past 40 years, minority workers have increased from about 30 percent to about 50 percent of the hired farm work force. In 1997, 424,000, or 48 percent, of the hired farmworkers were minority workers (41 percent Hispanic and 7 percent Black and other), compared with 29,813,000, or 26 percent, of all wage and salary workers (10 percent Hispanic and 16 percent Black and other). All wage and salary workers include hired farmworkers. The number and percentage of hired farmworkers who belong to a minority have remained fairly constant since 1994 (the year that the CPS was changed). The percentage of minority workers among all wage and salary workers has increased each year since 1994.

Minority hired farmworkers are more likely than White hired farmworkers to be male, older, married, and less educated (table 1). Similar results, except for age and marital status, are shown for all wage and salary workers (table 2).

Most minority hired farmworkers (64 percent) are employed in crop production. Almost 96 percent of them are located in the South and West census regions, compared with 71 percent of all wage and salary workers. They work predominantly as farmworkers and nursery workers (92 percent, compared with 87 percent for all hired farmworkers), and a few work as supervisors of farmworkers (5 percent) and managers (3 percent). Most White hired farmworkers (58 percent) are employed in livestock production in the Midwest and South census regions.

Farm employment fluctuates more throughout the year than nonfarm employment. In 1997, the number of hired farmworkers ranged from a low of about 589,000 in January to a high of 1,117,000 in July (a 90-percent increase), compared with all wage and salary workers where the range was from a low of about 111,390,000 in January to a high of 116,610,000 in July (a 5-percent increase). The range for minority hired farmworkers was from a low of 242,000 in December to a high of 582,000 in April, a difference of 340,000, or 141 percent (table 3). For White hired farmworkers, the range was from a low of 294,000 in January to a high of 590,000 in February, a difference of 295,000 or 100 percent (table 3).

Table 1

Demographic and earnings characteristics of hired farmworkers, by race and ethnicity, 1997

White hired farmworkers are better educated then their minority counterparts, but their earnings are similar

Characteristics	All	White	Hispanic	Black and other	All minorities[1]
Thousands					
Number of workers	889	465	365	59	424
Percent					
Total	100.0	100.0	100.0	100.0	100.0
Gender:					
Male	83.3	80.0	86.9*	87.2	87.0*
Female	16.7	20.0	13.1*	12.8	13.0*
Age (years):					
Less than 20	15.9*	25.1	5.9*	5.5*	5.8*
20-24	14.8	14.9	15.2	10.9	14.6*
25-34	24.3	19.7	30.9*	19.1	29.3*
35-44	21.4	19.5	22.9	26.8	23.4*
45-54	12.8	9.5	14.7	27.8*	16.5*
55 and older	10.9	11.4	10.4	9.9	10.4
Years					
Median age	33*	29	34*	38*	35*
Percent					
Marital status:					
Married	52.1*	43.5	63.9*	46.4	61.5*
Widowed, divorced, or separated	8.5	10.0	6.2	10.2	6.8
Never married	39.5*	46.5	29.9*	43.3	31.7*
Schooling completed:					
0-4 years	12.2*	1.0	27.0*	9.2	24.6*
5-8 years	22.1*	7.6	40.5*	22.6*	37.9*
9-11 years	24.8*	30.9	16.1*	30.5	18.1*
12 years	22.3*	31.5	10.3*	23.7	12.2*
13 years or more	18.6*	28.9	6.1*	14.1*	7.2*
1997 dollars					
Median weekly earnings	250	240	252	250	250

Note: These characteristics are annual averages calculated from the 12 monthly Current Population Survey estimates.

*Significantly different from White workers at the 95-percent confidence level.

[1] Combination of Hispanics, Blacks, and other.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Table 2

Demographic and earnings characteristics of all wage and salary workers, by race and ethnicity, 1997

White and non-White workers differ in demographic and earnings characteristics

Characteristics	All	White	Hispanic	Black and other	All minorities[1]
			Thousands		
Number of workers	114,697	84,884	11,896	17,917	29,813
			Percent		
Total	100.0	100.0	100.0	100.0	100.0
Gender:					
Male	52.2	52.0	60.2*	48.0*	52.8*
Female	47.8	48.0	39.8*	52.0*	47.2*
Age (years):					
Less than 20	6.0*	6.3	6.1		5.3*
20-24	10.5*	9.8	14.9*	10.7*	12.4*
25-34	25.6*	24.1	32.2*	28.3*	29.8*
35-44	27.4	27.3	25.7*	29.0*	27.7*
45-54	19.7*	20.8	14.0*	18.4*	16.6*
55 and older	10.8	11.7	7.1*	8.8*	8.1*
			Years		
Median age	37*	38	33*	36*	35*
			Percent		
Marital status:					
Married	57.0*	59.4	56.4*	45.6*	49.9*
Widowed, divorced, or separated	14.6	14.5	11.9*	17.8*	15.0*
Never married	28.4*	26.2	31.7*	36.6*	34.6*
Schooling completed:					
0-4 years	.8*	.1	5.2*	.7*	2.5*
5-8 years	2.8*	1.3	14.9*	2.3*	7.3*
9-11 years	10.0*	8.6	18.2*	11.4*	14.1*
12 years	32.4	32.6	29.1*	33.6*	31.8*
13 years or more	54.0*	57.4	32.6*	52.0*	44.3*
			1997 dollars		
Median weekly earnings	432*	471	320*	376*	350*

Note: These characteristics are annual averages calculated from the 12 monthly Current Population Survey estimates.

*Significantly different from White workers at the 95-percent confidence level.

[1] Combination of Hispanics, Blacks, and other.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Table 3

Average number of hired farmworkers employed per month, by race and ethnicity, 1997

Monthly employment differs between White and minority workers

Month	All	White	Hispanic	Black and other	All minorities[1]
			Thousands		
January	589	294	244	50	294
February	985	590	359	36	395
March	942	493	371	78	449
April	1,048	466	549	33	582
May	885	454	346	85	431
June	1,107	569	499	39	538
July	1,117	574	492	51	543
August	923	510	356	57	413
September	880	386	345	149	494
October	711	366	316	29	345
November	798	443	310	45	355
December	679	437	191	51	242

[1] Combination of Hispanics, Blacks, and other.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Unemployment Disproportionately Affects Minority Hired Farmworkers

The average weekly number of unemployed persons claiming hired farm work as their last primary occupation was about 106,000 in 1997. Hispanics, Blacks, and others accounted for 69 percent of these unemployed persons, a much greater percentage than their participation (50 percent) in the hired farm work labor pool. They also accounted for over 1 percent of all unemployed persons in 1997.

Minority Hired Farmworkers Earn the Same as All Hired Farmworkers

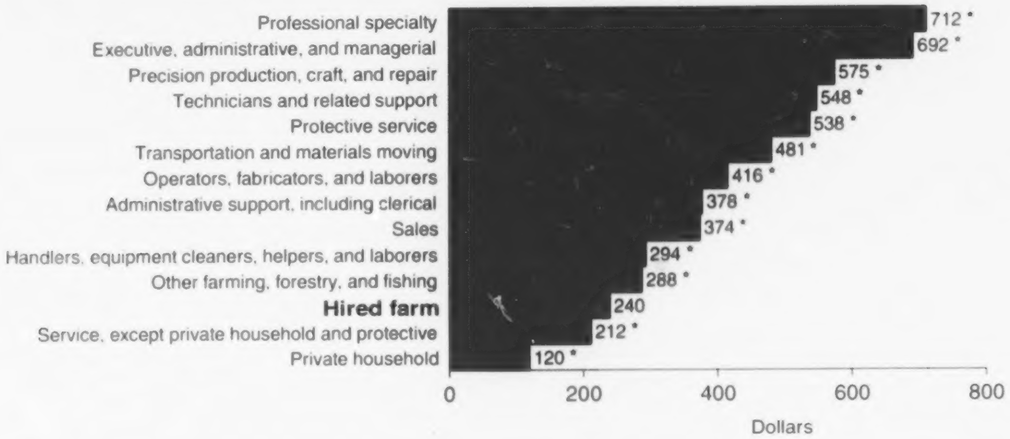
Unlike all wage and salary workers, the median weekly earnings of hired farmworkers did not differ significantly by race (tables 1 and 2). Although the median weekly wages for White hired farmworkers ($240) were lower than most other occupations, the median weekly earnings of Hispanic and Black hired farmworkers ($252 and $250, respectively) did not differ statistically from those in several other occupations (fig. 1).

The median weekly earnings (in real dollars) for hired farmworkers did not change significantly between 1994 ($258) and 1997 ($250). Real median weekly earnings significantly increased between 1994 ($458) and 1997 ($471) only for White wage and salary workers. Therefore, all hired farmworkers and all minority wage and salary workers are no better off, in terms of median weekly earnings, in 1997 than they were in 1994. *[Jack L. Runyan, 202-694-5438, jrunyan@econ.ag.gov]*

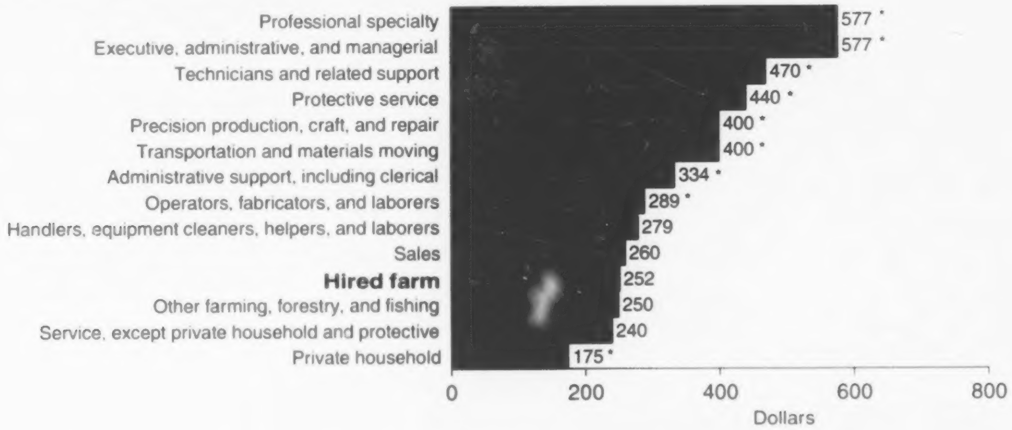
Figure 1

Median weekly earnings of wage and salary workers, by occupation, 1997

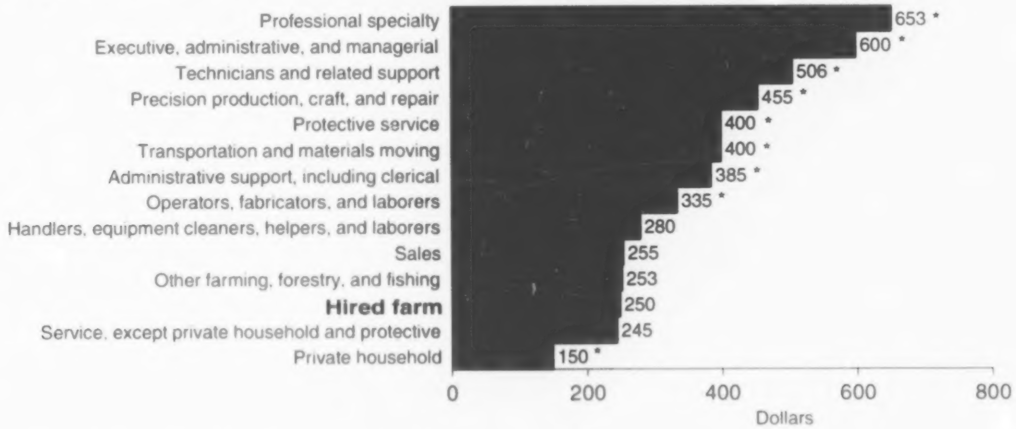
White hired farmworkers' earnings rank near the bottom of major occupational groups



Hispanic hired farmworkers' earnings rank near the bottom of major occupational groups, but are not significantly different from earnings of Hispanics in several other occupational groups



Black and other hired farmworkers' earnings, like Hispanics, are near the low end, but are not significantly different from earnings of Blacks and others in several other occupational groups



*Statistically significant at the 95-percent level from hired farmworkers' median weekly earnings.
Source: Calculated by ERS using data from the 1997 Current Population Survey earnings microdata file.

Sources and Levels of Farm Household Income Vary by Type of Farm

Average farm operator household income was about equal to that of all U.S. households in 1996. Only 16 percent of farm households' income came from farming. But, the sources and level of farm household income varied considerably, depending on the type of farm operated. The wealth of farm households, however, consisted largely of their farms, regardless of the type of farm they operated.

On average, 84 percent of farm households' income came from off-farm sources in 1996, mostly from wages and salaries. Operator household income averaged $50,400, which was on par with the $47,100 average for all U.S. households in 1996. The level and sources of income, however, varied with farm and operator characteristics.

This article examines the income of households operating "small farms," as defined by the National Commission on Small Farms, which was established in 1997 by the Secretary of Agriculture to examine issues facing small farms. The Commission used $250,000 in gross sales as its cutoff between small and large farms in its report, *A Time to Act*, released in January 1998. The Commission set the cutoff high enough to include more farm families of relatively modest income who may need or want to improve their net farm income. As a result, the Commission's cutoff includes 9 out of 10 U.S. farms.

A New ERS Classification of Small Farms

A broad category that includes so many farms may be divided for policy discussions. The Economic Research Service (ERS) developed a new farm typology to divide small (and other) U.S. farms into mutually exclusive and more homogeneous groups (see "The Farm Typology," p. 108). The farm typology focuses on "family farms," defined here as farms organized as proprietorships, partnerships, and family corporations. Family farms exclude farms organized as nonfamily corporations or cooperatives, as well as farms with hired managers. Family farms are closely held (legally controlled) by their operator and the operator's household.

The first group identified by the typology is **limited-resource farms**, or family farms with gross sales less than $100,000, farm assets less than $150,000, and household income less than $20,000. This definition is similar to limited-resource definitions used by the Risk Management Agency and the Natural Resources Conservation Service. Identifying this group is critical because agencies may need to develop special efforts to serve limited-resource farmers..

Unlike farmers in the other groups of small farms, limited-resource farmers are not restricted to one major occupation. Limited-resource farmers may report farming, a nonfarm occupation, or retirement as their major occupation. The limited-resource group identifies farmers with low sales, income, and assets, regardless of their major occupation.

The remaining small family farms are classified into one of three additional groups based on the major occupation of the operators—the occupation at which they spend more than 50 percent of their work time.

- **Retirement farms.** Small farms, the operators of which are retired. The operators may have had either a farm or nonfarm occupation before retirement. However, they still are engaged enough in farming to produce at least $1,000 of farm products, the minimum necessary for an establishment to be classified as a farm.
- **Residential/lifestyle farms.** Small farms, the operators of which report a major occupation other than farming. Some operators in this group may view their farms strictly as a hobby that provides a farm lifestyle. For others, the farm provides a residence and may supplement their off-farm income. Some may hope to eventually farm full-time. Some operators in this group may not actually live on their farm, but visit it in their spare time.
- **Farming occupation farms.** Small farms, the operators of which report farming as their major occupation. Although the operator spends most of his or her time farming, the household may receive substantial income from off-farm work by other household members and part-time off-farm work by the operator. Larger and small-

er farms in this group differ in their characteristics, so the group is further divided into two additional subgroups based on gross sales:

- **Lower sales farms.** Farming occupation farms with sales less than $100,000.
- **Higher sales farms.** Farming occupation farms with sales between $100,000 and $249,999.

Three additional groups of farms were added to the typology to ensure that it covers all farms. **Large family farms** have sales between $250,000 and $499,999, and **very large family farms** have sales of $500,000 or more. Finally, the **nonfamily farms** group includes farms organized as nonfamily corporations or cooperatives and farms with hired managers.

The information presented here is from the 1996 Agricultural Resource Management Study (ARMS), conducted by ERS and the National Agricultural Statistics Service (NASS), both USDA agencies. ARMS is an annual survey that collects information from farmers across the United States. It is the only source of farm business and farm household data complete enough to produce the typology (see "Data and Definitions" in the appendix for more information about the survey).

Large and Very Large Family Farms Produce Half of Farm Output

Although most U.S. farms are classified as small family farms, agricultural production is highly concentrated among large and very large family farms. These two groups together made up 8 percent of all farms in 1996, but accounted for 57 percent of U.S. production of agricultural products (fig. 1). Some small farms also made a substantial contribution to production. Small farms with high sales were responsible for 20 percent of the value of production, about the same percentage contributed by large farms. And small farms with lower sales accounted for another 10 percent of production.

The Farm Typology

Small Family Farms (sales less than $250,000)

1. **Limited-resource farms**. Any small farm with (1) gross sales less than $100,000, (2) total farm assets less than $150,000, and (3) total operator house hold income less than $20,000. Limited-resource farmers may report farming, a nonfarm occupation, or retirement as their major occupation.
2. **Retirement farms.** Small farms, the operators of which report they are retired. (Excludes limited-resource farms operated by retired farmers.)
3. **Residential/lifestyle farms**. Small farms, the operators of which report a major occupation other than farming. (Excludes limited-resource farms with operators reporting a nonfarm major occupation.)
4. **Farming occupation/lower sales.** Small farms with sales less than $100,000, the operators of which report farming as their major occupation. (Excludes limited-resource farms with operators reporting farming as their major occupation.)
5. **Farming occupation/higher sales**. Small farms with sales between $100,000 and $249,999 with operators reporting farming as their major occupation.

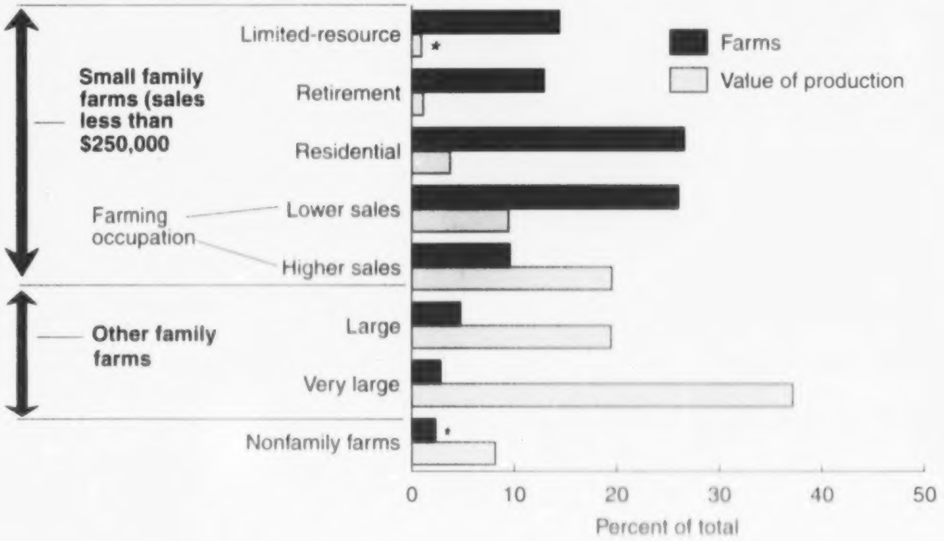
Other Farms

6. **Large family farms.** Sales between $250,000 and $499,999.
7. **Very large family farms.** Sales of $500,000 or more.
8. **Nonfamily farms.** Farms organized as nonfamily corporations or cooperatives, as well as farms operated by hired managers.

Figure 1

Share of farms and value of production, by farm typology group, 1996

Large and very large family farms account for 57 percent of the value of production



*The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1996 Agricultural Resource Management Study.

At the other extreme, about half of all U.S. farms were in the limited-resource, retirement, and residential/lifestyle categories, but these farms produced only 6 percent of farm output. Most farm businesses are very small because only $1,000 of farm sales is necessary for an establishment to be classified as a farm according to the official U.S. definition. As shown below, many farm households rely on off-farm income—either by choice or necessity—because most establishments classified as farms produce too little to support a family.

Levels and Sources of Income Vary

The levels and sources of income varied widely from group to group (fig. 2). Households operating very large farms had the highest average household income, $193,800, about four times the average for all U.S. households. These households received only 18 percent of their income from off-farm sources. (See app. table 20 for more information about the income of farm households).

Households operating residential/lifestyle farms or large farms also had an average income above the average for all U.S. households, but the sources of income differed between the two groups. Households with residential/lifestyle farms received virtually all of their income from off-farm sources. Forty-six percent of these farms specialized in beef, which in the case of cow-calf enterprises can have relatively low labor requirements compatible with off-farm work (see app. table 21 for more information about the characteristics of farms in the typology). In contrast, households with large farms received only 30 percent of their income from off the farm. Cash grain was the most common specialization for large family farms (40 percent).

Households operating retirement farms or higher sales small farms had an average income that did not differ from the average for all U.S. households by a statistically significant amount. Nearly all the income of households with retirement farms came from off the farm, and 62 percent of their off-farm income was from unearned sources, such as

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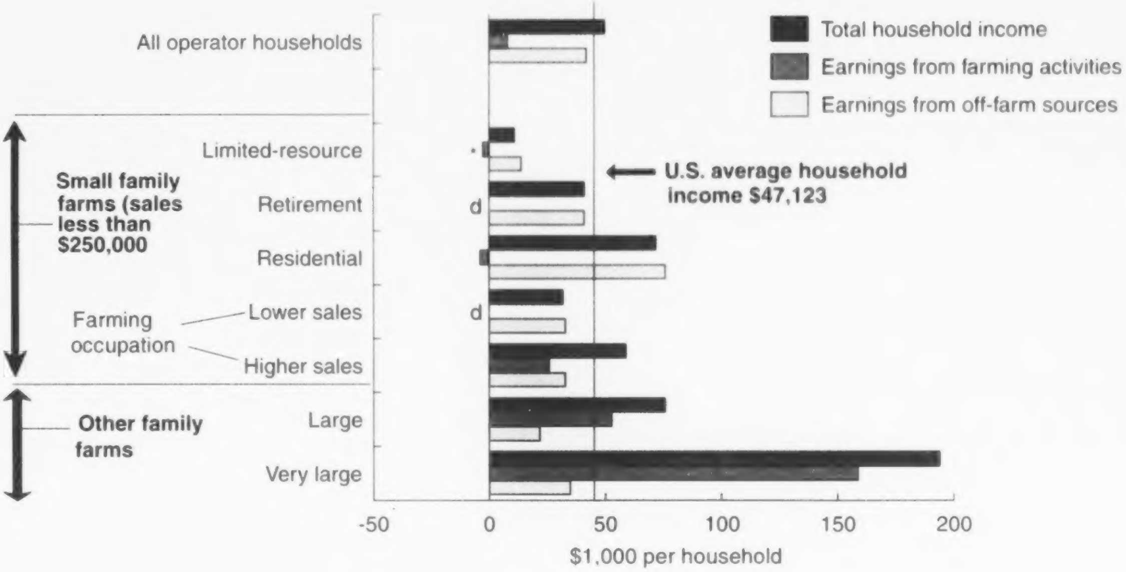
Figure 2

Total, farm-related, and off-farm income per operator household, by farm typology group, 1996

Small farms depend heavily on off-farm income



Note: Household income data are not collected for nonfamily farms. Earnings from off-farm sources can be larger than total household income if earnings from farming activities are negative.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

d = Earnings from farming activities supressed because the standard error exceeds 75 percent.

Source: USDA, Economic Research Service, 1996 Agricultural Resource Management Study for operator household data. U.S. Bureau of the Census, Current Population Survey for all U.S. households.

Social Security and investment income. About 36 percent of retirement farms specialized in beef cattle. For another 21 percent of retirement farms, the Conservation Reserve Program (CRP) was the sole source of farm income. The cropland had retired on these farms—at least temporarily—as well as the farmer.

Unlike households running retirement farms, households operating small higher sales farms received just 57 percent of their income from off-farm sources. Cash grain was the most common specialization for high-sales farms (49 percent), and another 21 percent specialized in dairy. As one would expect from these specializations, 63 percent of higher sales farmers lived in the Lake States, Corn Belt, and Northern Plains. (See "Definitions" in the appendix for the States in each major farming region.)

The two remaining groups, lower sales and limited-resource farm households, had average household incomes below the average for all U.S. households and relied heavily on off-farm income. Income for households operating lower sales small farms averaged $31,500, or 67 percent of the average for all U.S. households. Practically all of their income came from off-farm sources, on average. Like retirement farms and residential/lifestyle farms, lower sales farms often specialized in beef cattle (38 percent).

Off-farm income averaged $13,600 for households with limited-resource farms, but they lost an average of $3,000 from farming. As a result, they averaged only $10,600 in total household income, or about one-fifth of the average for all U.S. households. Most limited-resource farmers did not report farming as their major occupation. Nearly half (49 percent) were retired, and another 19 percent had a nonfarm occupation. Most (54 percent) limited-resource farms specialized in beef cattle, a good fit for those who were retired or worked off-farm. Limited-resource farms were largely a Southern phenomenon; 62 percent of limited-resource farmers lived in Southern farming regions.

Although many farm households relied heavily on off-farm sources for income, most operator household wealth came from the farm, regardless of the type of farm operated (fig. 3). Except for households operating limited-resource farms, each group of households had an average household net worth above the $205,900 average for all U.S. households for 1995, as reported by the most current Survey of Consumer Finances. Most of the net worth of operator households is illiquid and not readily available for spending, since it is largely based on assets necessary for farming.

Black Farmers More Likely to Be Limited-Resource Farmers

ARMS does not have sufficient sample size to examine farms in the minority-concentration county groups discussed elsewhere in this issue of *Rural Conditions and Trends*. Nevertheless, some comparisons between Black and White farmers are possible at the national level. Black farm households had a much lower average household income ($19,600) than White farm households ($52,300) (fig. 4). About 43 percent of Black farmers operated limited-resource farms, compared with 13 percent of White farmers. (The difference between the Black and White estimates of limited-resource farmers was statistically significant only at the 89-percent level, however.)

Both Farm and Nonfarm Economy Are Important to Farmers

The information presented above has policy implications for any discussion of farm households. Regardless of the type of farm, operators of small farms rely to some extent on off-farm income. On average, virtually all income comes from off-farm sources for households operating limited-resource, retirement, residential/lifestyle, or low-sales farms. Even households with large farms and very large farms receive substantial off-farm income (an average of $22,400 and $35,000, respectively), although most of their income comes from farming activities. As a result, the nonfarm economy is an important issue for farm operators and their households. For the half million residential/lifestyle farmers, the nonfarm economy is essential. For operators of retirement farms (and retired operators of limited-resource farms), the status of retirement programs, the Conservation Reserve Program (CRP), and the returns on investments are also critical.

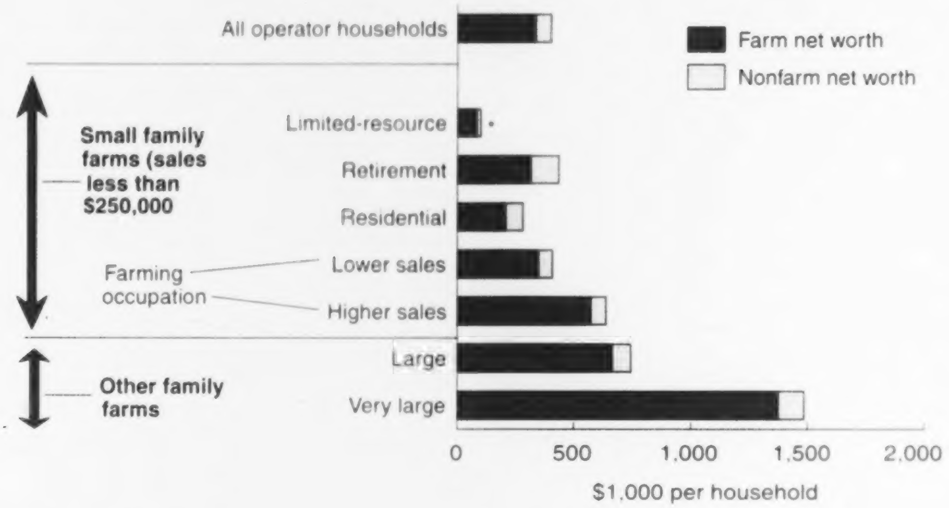
Nevertheless, operators of many small farms may be interested in improving their earnings from farming activities through such measurers as extension education, innovative marketing programs, and credit targeted specifically at small farms. Trying to raise earnings from farming may be particularly appropriate for limited-resource farmers. Even modest improvements in household income could be important to these low-income farmers.

Traditional farm programs—including transition payments under the 1996 farm legislation—may be of limited use to most small farms. Farm programs focus on grain, cotton, and dairy products, while many small farmers specialize in beef cattle. Farm programs are most relevant to higher sales small farms, since half of them specialize in cash grain. *[Robert A. Hoppe, 202-694-5572, rhoppe@econ.ag.gov]*

Figure 3

Average farm operator household net worth, by farm typology group, 1996

Most farm operator households' wealth comes from the farm



Note: Household net worth data are not collected for nonfamily farms.

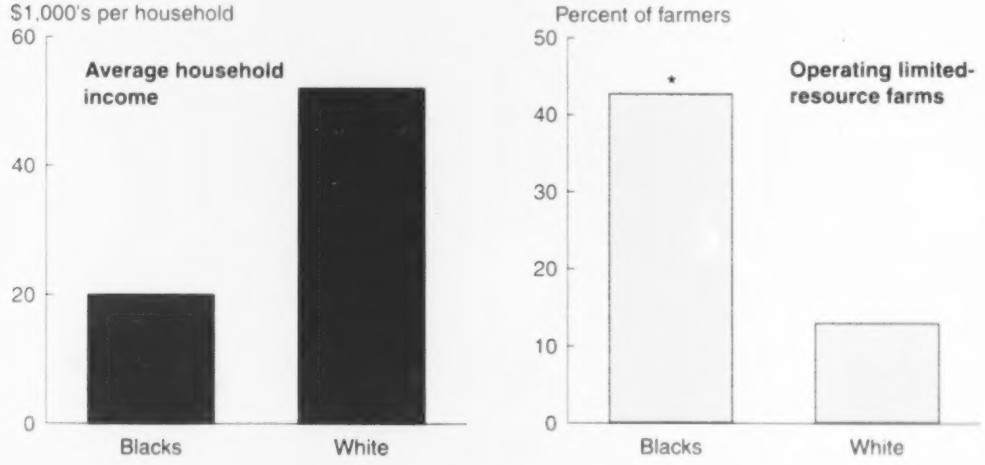
*The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1996 Agricultural Resource Management Study.

Figure 4

Average household income and percentage operating limited-resource farms for Black and White farmers, 1996

Black farmers have lower average household income and are more likely to operate limited-resource farms



*The relative standard error exceeds 25 percent but is no more than 50 percent.

Source: USDA, Economic Research Service, 1996 Agricultural Resource Management Study.

Defining Household Income

The Current Population Survey (CPS), conducted by the Bureau of the Census, is the source of official U.S. household income statistics. Thus, calculating an estimate of farm household income from the Agricultural Resource Management Study (ARMS) that is consistent with CPS methodology allows income comparisons between farm operator households and all U.S. households.

The CPS definition of farm self-employment income is net money income from the operation of a farm by a person on his or her own account, as an owner or renter. CPS self-employment income includes income received as cash, but excludes in-kind or nonmoney receipts. The CPS definition departs from a strictly cash concept by deducting depreciation, a noncash business expense, from the income of self-employed people.

Farm self-employment income from the ARMS is the sum of the operator household's share of farm business income (net cash farm income less depreciation), wages paid to the operator, and net rental income from renting farmland. Adding other farm-related earnings of the operator household yields earnings of the operator household from farming activities. (Other farm-related earnings consists of net income from a farm business other than the one being surveyed, wages paid by the farm business to household members other than the operator, and commodities paid to household members for farm work.)

Earnings of the operator household from farming activities is not a complete measure of economic well-being provided by the farm. It leaves out some resources the farm business makes available to the household. For example, depreciation is an expense deducted from income that may not actually be spent during the current year. Increases in inventories are excluded from the earnings measure, but they could be sold to raise cash. Nonmoney income, such as the imputed rental value of a farm-owned dwelling, represents a business contribution to household income because it frees up household cash that would otherwise be spent on housing. Finally, earnings of the operator household from farming activities does not reflect the large net worth of many farm operator households.

Data Sources

Employment data: Data on metro and nonmetro employment and unemployment reported in this issue come from two sources. The monthly Current Population Survey (CPS), conducted by the Bureau of the Census for the Bureau of Labor Statistics (BLS), provides detailed information on the labor force, employment, unemployment, and demographic characteristics of the metro and nonmetro population. The CPS derives estimates based on interviews of a national sample of about 47,000 households that are representative of the U.S. civilian noninstitutional population 15 years of age and over. Labor force information is based on respondents' activity during 1 week each month. Among the data products of the CPS are the monthly files, the earnings microdata files, and the March Annual Demographic Supplement (known as the March CPS). BLS county-level employment data, the Local Area Unemployment Statistics (LAUS), are taken from unemployment insurance claims and State surveys of establishment payrolls, which are then benchmarked to State totals from the CPS. The BLS data series provides monthly estimates of labor force, employment, and unemployment for individual counties.

Each of these data sets has its advantages and disadvantages. The CPS furnishes detailed employment, unemployment, and demographic data for metro and nonmetro portions of the Nation. The LAUS provides less detailed employment data than the CPS, but it offers very current employment and unemployment information at the county level and is less subject to short-term fluctuations due to sample variability. While these data sources are likely to provide different estimates of employment conditions at any point in time, they generally indicate similar trends.

Earnings data: Data on metro and nonmetro earnings reported in this issue come from two sources. The data for average and median weekly earnings worked are drawn from the outgoing rotation of respondents in the monthly CPS, about one-quarter of the total sample. These respondents are asked about the usual earnings on their sole or primary job. The CPS earnings microdata file, referred to as the earnings file, consists of all records from the monthly quarter-samples of CPS households that were subject to having these questions on hours worked and earnings asked during the year. The 1997 data file contained information on almost 430,000 persons. Data are available for all wage and salary workers in both the public and private sectors. The CPS collects information from people at their residences. They may work in other areas, such as nonmetro residents who work in metro areas.

The Bureau of Economic Analysis' Regional Economic Information System is the source of the county-level earnings and jobs data used in this issue to analyze nonfarm earnings per job. These BEA data are based primarily on administrative records of the unemployment insurance program. While the CPS analysis is of the earnings of metro and nonmetro residents, the BEA earnings per nonfarm jobs analysis covers the jobs located in metro and nonmetro areas. The analyses also differ in that the CPS earnings are based on full-time workers while the BEA earnings are the average over all jobs in the area, including both full- and part-time jobs. The CPS earnings are an indicator of worker well-being while the BEA earnings are an indicator of the strength of the local labor market.

Farm labor data: Information on the characteristics and earnings of hired farmworkers are from the CPS earnings microdata file. The data for average and median weekly earnings and usual weekly hours worked are drawn from the outgoing rotation of respondents in the monthly CPS, as were the overall metro and nonmetro earnings. The 1997 data file is based on information from 1,210 hired farmworkers, which is used for estimates of the hired farmworker population.

Farm household income and net worth data: Farm household income and net worth data are from the 1996 Agricultural Resource Management Study (ARMS). The ARMS is a probability-based, annual survey in which each respondent represents a number of farms of similar size and type. Thus, ARMS sample data can be expanded using appropriate weights to represent all farms in the contiguous United States. The ARMS is conducted annually by the Economic Research Service (ERS) and the National Agricultural

Statistics Service (NASS) in all States except Alaska and Hawaii. The 1996 ARMS household data were based on usable data collected from nearly 7,000 farms and ranches. ARMS was previously known as the Farm Costs and Returns Survey (FCRS).

Estimates based on an expanded sample differ from what would have occurred if a complete enumeration had been taken. However, the relative standard error (RSE), a measure of sampling variability, is available from survey results. The RSE is the standard error of the estimate expressed as a percentage of the estimate. According to the guidelines for use of the ARMS, any estimate with an RSE greater than 25 percent must be identified; such estimates are identified in the figures and appendix tables of the article on farm household income.

The standard error of the estimate can also be used to evaluate the statistical differences between ARMS-based estimates. The article on operator household income emphasizes differences between ARMS-based estimates only when estimates were significantly different at the 95-percent level or higher, unless stated otherwise.

Housing data: Housing data are from the American Housing Survey conducted by the Bureau of the Census for the U.S. Department of Housing and Urban Development. The American Housing Survey is a longitudinal survey designed to provide detailed information on housing structure, use, and plumbing characteristics, equipment and fuel use, housing and neighborhood quality, financial characteristics, and household attributes of current occupants. The national sample is based on about 55,000 units selected for interview in 1995. Data are weighted to reflect the U.S. population. Data were collected annually from 1973 to 1981 as the Annual Housing Survey and every other year since 1981 as the American Housing Survey.

Income, poverty, and transfers data: The household income and poverty data reported in this issue were calculated from the March Annual Demographic Supplement of the Current Population Survey, known as the March CPS. Every year, the March CPS includes supplemental questions on sources and amounts of money received during the previous calendar year. Consequently, income information in the March CPS refers to the previous year. Estimates from the March CPS are published by the Bureau of the Census in the Consumer Income P-60 series. Information on family size and income is used to estimate the number of families and individuals in poverty based on official guidelines issued by the Office of Management and Budget. Demographic data are available to examine the distribution of income and the characteristics of the poverty populations in metro and nonmetro areas.

Information on personal income and transfers payments derives from the Bureau of Economic Analysis (BEA) employment and income data. BEA estimates annual earnings, proprietor's income, transfer payments, and other personal income at the county level based primarily on administrative records. BEA's estimates of personal income includes in-kind sources, such as Medicare and food stamp benefits.

The CPS household income estimates exclude in-kind income, so the two sources differ in both the unit of analysis (local area income per person versus income of households) and the income definition (cash and in-kind versus cash only). The CPS incomes are an indicator of household well-being while the BEA income and transfers are indicators of local area well-being and program dependence.

Population and migration data: Estimates of population change, net migration, and natural increase are from the Bureau of the Census county population estimates issued annually. Population estimates are based on various data sources. Births and deaths are based on vital statistics records. Migration estimates are derived as a residual by subtracting natural population increase from actual increases. Estimates include net gain from other counties as well as the institutional population. Data on the characteristics of migrants, elderly, and children are from the March 1996 and March 1997 Current Population Survey.

Definitions

Adjusted unemployment rate: The total unemployed, plus all marginally attached workers (including discouraged workers), plus total workers employed part-time for economic reasons, as a percentage of the civilian labor force plus all marginally attached workers. The adjusted unemployment rate is a more comprehensive way to measure labor market distress than the unemployment rate. This measure corresponds with the Bureau of Labor Statistics's U-6 measure of unemployment, from the 1994 revised alternative measures of labor underutilization.

Civilian labor force: Noninstitutional civilians age 16 or older who are either employed or unemployed. Individuals who are neither employed nor unemployed are out of the labor force.

Family: Family is defined as two or more people residing together who are related by birth, marriage, or adoption.

Farm: Any place from which $1,000 or more worth of agricultural products is sold or normally would be sold in a year.

Farm operator: The person who runs the farm, making the day-to-day decisions. Information is collected for only one operator per farm. For farms with more than one operator, data are collected only for the primary operator.

Farm operator households: The households of primary operators of farms organized as individual operations, partnerships, and family corporations. These farms are closely held (legally controlled) by their operator and the operator's household. Farm operator households exclude households associated with farms organized as nonfamily corporations or cooperatives, as well as households where the operator is a hired manager. Household members include all persons dependent on the household for financial support, whether they live in the household or not. Students away at school, for example, are counted as household members if they are dependents.

Farm operator household income: The total income of farm operator households consists of earnings from farming activities and earnings from off-farm sources. Calculating earnings from farming activities begins with farm self-employment income. Farm self-employment income is the sum of the operator household's share of farm business income (net cash farm income less depreciation), wages paid to the operator, and net rental income from renting farmland. Adding other farm-related earnings of the operator household yields earnings from farming activities. (Other farm-related earnings consists of net income from a farm business other than the one being surveyed, wages paid by the farm business to household members other than the operator, and commodities paid to household members for farm work.) Earnings from off-farm income is the income that all farm household members received from other sources, including wages and salaries, the net income of any nonfarm businesses, interest and dividends, and all other cash off-farm income.

Farm operator household net worth: The difference between the operator household's assets and liabilities. It is calculated as the sum of the operator household's farm net worth and nonfarm net worth. If the net worth of the farm is shared with other households (such as the households of shareholders in a family corporation), only the operator household's share is included.

Farm typology: The Economic Research Service (ERS) developed a farm classification to divide small family and other farms in the United States into mutually exclusive and more homogeneous groups. The farm typology focuses on "family farms," or farms organized as proprietorships, partnerships, and family corporations that are not operated by a hired manager. To be complete, however, it also considers nonfamily farms.

Small family farms (sales less than $250,000):

Limited-resource farms—Any small farm with (1) gross sales less than $100,000, (2) total farm assets less $150,000, and (3) total operator household income less than $20,000. Limited-resource farmers may report farming, a nonfarm occupation, or retirement as their major occupation.

Retirement farms—Small farms with operators who report they are retired (excludes limited-resource farms operated by retired farmers).

Residential/lifestyle farms—Small farms with operators who report they had a major occupation other than farming (excludes limited-resource farms with operators reporting a nonfarm major occupation).

Farming occupation/lower sales—Small farms with sales less than $100,000 and operators who report farming as their major occupation (excludes limited-resource farms with operators reporting farming as their major occupation).

Farming occupation/higher sales—Small farms with sales between $100,000 and $249,999 and operators who report farming as their major occupation.

Other farms:

Large family farms—Sales between $250,000 and $499,999.

Very large family farms—Sales of $500,000 or more.

Nonfamily farms—Farms organized as nonfamily corporations or cooperatives, as well as farms operated by hired managers.

Hired farmworkers: Persons age 15 and older who do farm work for cash wages or salary, including persons who manage farms for employers on a paid basis, supervisors of farmworkers, and general farm and nursery workers.

Household: Households consist of all persons living in a housing unit. A house, an apartment, or a single room is considered a housing unit if it is occupied as separate living quarters. To be classified as separate living quarters, the occupants of the housing unit must not live and eat with any other people in the structure.

Household income: The sum of the amounts of money received from wages and salaries; nonfarm self-employment income; farm self-employment income; Social Security or railroad retirement; Supplement Security Income; cash public assistance or welfare payments; dividends, interest, or net rental income; veterans payments; unemployment or workers' compensation; private or government employee pensions; alimony or child support; and other periodic payments for all household members.

Inflation rate: The percentage change in a measure of the average price level. The two measures of the average price level used in this issue are the Consumer Price Index for All Urban Consumers (CPI-U) and the chain-type price index for Personal Consumption Expenditures.

Inmigration and inmovement are used interchangeably.

Major farming regions:

Northeast—Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont.

Lake States—Michigan, Minnesota, Wisconsin.

Corn Belt—Illinois, Indiana, Iowa, Missouri, Ohio.

Northern Plains—Kansas, Nebraska, North Dakota, South Dakota.

Appalachian—Kentucky, North Carolina, Tennessee, Virginia, West Virginia.

Southeast—Alabama, Florida, Georgia, South Carolina.

Delta—Arkansas, Louisiana, Mississippi.

Southern Plains—Oklahoma, Texas.

Mountain—Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming.

Pacific—California, Oregon, Washington.

Median household income: The median household income is the income of the household at the center of the income ranking (that is, at the 50th percentile). Thus, the median represents the income of the average household. The median has the advantage of not being influenced by the very high incomes of a small minority of households or persons.

Metro areas: Metropolitan Statistical Areas (MSA's), as defined by the Office of Management and Budget, include core counties containing a city of 50,000 or more people or have an urbanized area of 50,000 or more and total area population of at least 100,000. Additional contiguous counties are included in the MSA if they are economically integrated with the core county or counties. For most data sources, these designations are based on population and commuting data from the 1990 Census of Population. The Current Population Survey data beginning in 1995 categorizes counties as metro and nonmetro based on population and commuting data from the 1990 census. Throughout this publication, "urban" and "metro" have been used interchangeably to refer to people and places within MSA's.

Minority counties: Refers to three categories of minority counties—Black, Hispanic, and Native American—defined as having 33 percent or more of the population coming from the particular racial or ethnic group. These high-minority counties are subdivided into substantially minority counties (33 to 50 percent) and predominantly minority counties (50 percent or more).

Natural amenities index: Natural amenities are measured using an index created at the Economic Research Service, combining measures of climate, topography, and the presence of bodies of water. The index of climate attractiveness is defined using January temperature, number of days with sun in January, July temperature (expressed as a residual when regressed against January temperature), and July humidity. Topography is defined as the difference between an index of mountainous or rugged terrain and average elevation. The presence of bodies of water is measured using the percentage of land area covered by water.

Nonfarm earnings: The sum of wage and salary income, other labor income, such as privately administered pension and profit-sharing plans, and current production income of nonfarm sole proprietorships, partnerships, and tax-exempt cooperatives.

Nonmetro areas: Counties outside metro area boundaries. Throughout this publication, "rural" and "nonmetro" are used interchangeably to refer to people and places outside of MSA's.

Outmigration and outmovement are used interchangeably.

Personal income: The sum of money income to a person from all sources, from which money income is regularly received, reported as having been received in the previous calendar year. The sources of money income are wages and salary; net income from the operation of a business or farm; dividends, interest, royalties, and net rental income; alimony and child support payments received from outside the household; pensions; and transfer payments. Specifically excluded under this definition are windfalls, such as a lump sum payment of an inheritance even though in money; capital gains or losses; income in kind; and all within-household gifts or transfers whether in cash or kind.

Poverty: A person is in poverty if his or her family's money income is below the official poverty threshold appropriate for that size and type of family. Different thresholds exist for elderly and nonelderly persons living along, for two-person families with and without elderly heads, and for different family sizes by number of children. For example, the poverty threshold for a family of four with two children was $15,911 in 1996. The thresholds are adjusted for inflation annually using the Consumer Price Index.

Region: The States in each Census region are as follows:

Northeast—Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

Midwest—Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

South—Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

West—Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

Rural-urban continuum codes: Classification system developed by ERS to group counties by the size of their urban population and their adjacency to larger areas. (See Margaret A. Butler and Calvin L. Beale, *Rural-Urban Continuum Codes for Metro and Nonmetro Counties, 1993*, AGES 9425, U.S. Department of Agriculture, Economic Research Service, Sept. 1994).

Metro counties—

Central counties of metro areas of 1 million population or more

Fringe counties of metro areas of 1 million population or more

Counties in metro areas of 250,000 to 1 million population

Counties in metro areas of fewer than 250,000 population

Nonmetro counties—

Urban population of 20,000 or more, adjacent to a metro area

Urban population of 20,000 or more, not adjacent to a metro area

Urban population of 2,500 to 19,999, adjacent to a metro area

Urban population of 2,500 to 19,999, not adjacent to a metro area

Completely rural or less than 2,500 urban population, adjacent to a metro area

Completely rural or less than 2,500 urban population, not adjacent to a metro area

Nonmetro adjacent counties—

Nonmetro counties are classified as adjacent if they are physically adjacent to one or more metro areas and have at least 2 percent of the employment labor force in the county commuting to the central metro county for work.

Transfer payments: Cash or goods that people and nonprofit institutions receive from government and some businesses (for example, liability payments) for which no work is currently performed. Receipt of transfer payments, however, may reflect work performed in the past. For example, elderly people receive Social Security now because they worked earlier in their lives and paid taxes to fund the program. Government transfers to individuals are grouped into the following categories: retirement and disability programs, medical programs, income maintenance programs, unemployment insurance, veterans' programs, and other. Further classification combines Medicaid benefits with income maintenance benefits to form a pubic assistance category comparable with the classification used by the Social Security Administration.

Note that payments from farm commodity programs are received as part of farmers' gross cash income from current farming activities. They are not transfer payments.

Typology codes: Classification system developed and periodically revised by ERS to group counties by economic and policy-relevant characteristics. The typology codes used in this issue are those described in Peggy J. Cook and Karen L. Mizer, *The Revised ERS County Typology: An Overview*, RDRR 89, U.S. Department of Agriculture, Economic Research Service, Dec. 1994.

Economic types (mutually exclusive, a county may fall into only one economic type):

Farming-dependent—Farming contributed a weighted annual average of 20 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Mining-dependent—Mining contributed a weighted annual average of 15 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Manufacturing-dependent—Manufacturing contributed a weighted annual average of 30 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Government-dependent—Federal, State, and local government activities contributed a weighted annual average of 25 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Services-dependent—Service activities (private and personal services, agricultural services, wholesale and retail trade, finance, insurance, real estate, transportation, and public utilities) contributed a weighted annual average of 50 percent or more of total labor and proprietors' income over the 3 years from 1987 to 1989.

Nonspecialized—Counties not classified as a specialized economic type over the 3 years from 1987 to 1989.

Policy types (overlapping, a county may fall into any number of these types and one economic type):

Retirement-destination—The population age 60 years and over in 1990 increased by 15 percent or more during 1980-90 through inmovement of people.

Federal lands—Federally owned lands made up 30 percent or more of a county's land area in the year 1987.

Commuting—Workers age 16 years and over commuting to jobs outside their county of residence were 40 percent or more of all the county's workers in 1990.

Persistent-poverty—Persons with poverty-level income in the preceding year were 20 percent or more of total population in each of 4 years: 1960, 1970, 1980, 1990.

Transfers-dependent—Income from transfer payments contributed a weighted annual average of 25 percent or more of total personal income over the 3 years from 1987 to 1989.

Unemployment rate: The number of unemployed people 16 years and older as a percentage of the civilian labor force age 16 years and older.

Appendix table 1—Nonmetro employment and unemployment, by race and ethnicity, 1973-97

Year	Employment				Unemployment rate			
	Overall	White	Black	Hispanic	Overall	White	Black	Hispanic
	Thousands				Percent			
1997	24,360	21,981	1,731	1,116	5.2	4.6	11.6	8.5
1996	24,059	21,774	1,637	1,029	5.5	4.8	12.8	8.4
1995	24,184	NA	NA	NA	5.7	NA	NA	NA
1994	23,970	NA	NA	NA	5.9	NA	NA	NA
1993	25,586	23,237	1,804	764	6.6	6.1	12.4	9.5
1992	25,034	22,692	1,839	686	7.2	6.6	13.1	12.3
1991	24,452	22,109	1,881	595	7.1	6.5	12.9	9.2
1990	24,661	22,318	1,874	667	6.0	5.3	12.0	10.2
1989	24,718	22,461	1,849	632	5.7	5.1	12.0	9.3
1988	23,827	21,695	1,775	573	6.2	5.6	12.8	12.7
1987	23,302	21,158	1,778	534	7.2	6.4	14.0	12.6
1986	23,091	21,070	1,659	532	8.3	7.5	15.9	13.9
1985	22,700	20,737	1,615	511	8.4	7.5	16.8	13.1
1984	31,930	29,256	2,213	751	8.1	7.3	16.3	12.1
1983	30,696	28,144	2,106	728	10.1	9.2	19.0	17.2
1982	30,335	27,922	1,983	744	10.1	9.3	19.1	14.3
1981	30,488	28,153	1,994	763	7.9	7.3	14.9	10.4
1980	30,150	27,877	1,953	737	7.3	6.7	13.7	9.5
1979	29,916	27,602	1,993	672	5.7	5.2	11.4	9.4
1978	29,844	27,372	2,134	627	5.8	5.3	11.4	9.2
1977	28,317	26,081	2,039	617	6.6	6.1	12.1	9.6
1976	27,150	25,050	1,919	586	7.0	6.5	12.5	9.8
1975	26,126	24,125	1,843	584	8.0	7.4	14.3	10.3
1974	26,458	24,376	1,929	615	5.1	4.7	10.1	10.9
1973	26,091	24,084	1,850	445	4.4	4.0	8.9	8.1

NA = Data not available.

Note: White, Black, and Hispanic employment does not sum to overall employment because Hispanics can be of any race and because overall employment also includes other races not specifically shown. Data on employment by ethnicity by nonmetro status are not available for 1994 or 1995. Beginning in 1994, the metro-nonmetro definition is based on the 1990 Census. Also beginning in 1994, CPS estimates reflect a revised questionnaire and collection methodology and are not strictly comparable with prior data. Beginning in 1990, population controls are based on the 1990 Census. Beginning in 1985, revised population controls and the metro-nonmetro definition are based on the 1980 Census.

Source: Calculated by ERS using data from the Current Population Survey.

Appendix table 2—Population, by race and ethnicity in rural minority counties, 1990

			Non-Hispanic					
Item	Counties	Total	White	Black	Native American	Asian	Other	Hispanic
	Number		Thousands					
U.S. total	3,101	248,710	188,128	29,216	1,794	6,968	249	22,354
Metro	813	197,812	144,753	24,888	912	6,580	229	20,452
Nonmetro	2,288	50,898	43,376	4,329	882	389	20	1,902
All minority counties	333	6,274	3,005	2,028	374	22	4	841
Substantial	197	3,908	2,215	1,214	134	15	2	328
Predominant	136	2,366	790	813	240	7	2	513
Black counties	208	4,230	2,210	1,972	18	11	1	29
Substantial	131	2,895	1,683	1,167	15	8	1	22
Predominant	77	1,345	527	805	3	3	.2	7
Native American counties	37	638	221	28	343	2	.4	40
Substantial	15	300	132	27	115	1	.2	22
Predominant	22	338	89	1	228	1	.2	18
Hispanic counties	88	1,400	573	28	14	9	3	773
Substantial	51	717	400	21	5	6	2	284
Predominant	37	683	173	7	9	3	1	489
Other nonmetro counties	1,955	44,624	40,370	2,301	508	367	16	1,062

Notes: 1993 metro definition. See p. 118 for definition of high-minority counties.

Source: Calculated by ERS using data from the Bureau of the Census.

Appendix table 3—Percentage of counties in persistent poverty, 1960-90, and poverty rates, by race and ethnicity, 1989, in rural minority counties

Item	Persistent-poverty counties	Total	Black	Native American	Hispanic	Non-minority
	Percent of counties	Percent in poverty				
U.S. total	n/a	13.1	29.5	30.9	25.3	9.8
Metro	n/a	12.1	27.7	24.1	24.5	8.5
Nonmetro	23.5	17.1	40.2	38.8	33.4	14.2
All minority counties	74.1	27.8	43.5	45.6	38.1	12.8
Substantial	62.8	23.8	40.7	37.9	34.8	12.7
Predominant	90.4	34.4	47.8	49.8	40.2	13.0
Black counties	77.9	27.0	43.6	32.3	30.8	12.2
Substantial	67.2	23.8	40.7	30.6	27.1	12.1
Predominant	96.1	33.8	47.9	41.3	45.0	12.3
Native American counties	80.6	33.4	38.8	46.7	29.3	13.8
Substantial	71.4	26.9	39.6	39.0	30.6	14.7
Predominant	86.4	39.0	23.1	50.6	27.7	12.6
Hispanic counties	62.5	27.9	41.4	34.5	38.7	14.8
Substantial	49.0	22.9	43.9	41.3	35.5	14.7
Predominant	81.1	33.4	34.0	34.7	40.6	15.2
Other nonmetro areas	14.9	15.6	37.2	33.9	29.5	14.0

n/a = Not applicable.

Notes: 1993 metro definition. See p. 118 for definitions of minority counties and poverty and p. 120 for definition of persistent-poverty counties, which are defined for nonmetro counties only. Nonminority rates are for Whites (Hispanic and non-Hispanic) in all areas except the Hispanic counties, where poverty rates are reported for the total non-Hispanic population, which includes a small number of non-Whites. This is done because poverty was not reported by race for the Hispanic population.

Source: Calculated by ERS using data from the 1990 Census of Population, Bureau of the Census.

Appendix table 4—Population change, net migration, and natural increase, by county type, 1990-97

County type	Counties	Population change	Share of counties with increasing population	Natural change	Share of counties with natural increase	Net migration	Share of counties with net immigration
	Number	Percent					
Total nonmetro	2,291	6.6	73	2.6	73	4.0	64
Farming	556	4.4	48	2.0	53	2.3	45
Mining	146	2.8	60	2.9	82	-.1	50
Manufacturing	506	5.9	86	2.5	88	3.4	73
Government	253	6.9	83	4.9	83	2.0	71
Services	324	9.5	82	2.2	73	7.3	73
Nonspecialized	485	7.0	80	1.9	73	5.1	73
Retirement	190	19.1	100	2.0	61	17.1	99
Federal lands	283	15.6	91	4.4	86	11.2	82
Commuting	381	9.8	90	2.4	81	7.5	86
Persistent-poverty	539	5.5	72	3.5	82	1.9	57
Transfer-dependent	385	6.2	75	1.6	64	4.9	68
Recreation	282	12.7	92	2.9	76	9.8	87
Adjacent to large metro	184	9.9	92	3.1	85	6.8	84
Adjacent to small metro	805	7.1	84	2.4	81	4.6	74
Nonadjacent to metro	1,302	5.3	64	2.6	66	2.7	56
Metro	813	7.8	89	5.8	96	2.1	72

Notes: County types are not mutually exclusive, except that farming, mining, manufacturing, government, services, and nonspecialized types are mutually exclusive of each other. Recreational counties defined by Johnson and Beale in *Rural Conditions and Trends*, Vol. 5, No. 1, Spring 1994. Adjacency defined by urban influence code, Ghelfi and Parker, "A County Level Measure of Urban Influence," ERS staff paper No. 9702, Feb. 1997. All other types defined in Cook and Mizer, *The Revised Economic Research Service County Typology: An Overview*, RDRR 89, Economic Research Service, Dec.1994. Percentage change is aggregate change for all cases in category. Number of counties reflects the aggregation of Virginia independent cities with their counties of origin. (See "Data Sources and Definitions" appendix for more information.)

Source: Calculated by ERS using data from the Bureau of the Census.

Appendix table 5—Nonmetro and metro labor force statistics, annual averages, 1990-97

Year	Population 16 and older	Labor force	Labor force partici-pation	Employed	Employ-ment/pop-ulation ratio	Unemployed	Unemployment rate: Basic	Unemployment rate: Adjusted
	Thousands	Thousands	Percent	Thousands	Percent	Thousands	Percent	Percent
Nonmetro:								
1997	39,843	25,689	64.5	24,360	61.1	1,330	5.2	9.5
1996	39,540	25,463	64.4	24,059	60.8	1,405	5.5	10.2
1995	39,997	25,638	64.1	24,184	60.5	1,454	5.7	10.6
1994	39,834	25,487	64.0	23,970	60.2	1,516	5.9	11.0
1993	43,140	27,401	63.5	25,586	59.3	1,814	6.6	10.4
1992	42,479	26,988	63.5	25,034	58.9	1,954	7.2	11.1
1991	41,971	26,323	62.7	24,452	58.3	1,871	7.1	11.0
1990	41,677	26,235	62.9	24,661	59.2	1,574	6.0	9.5
Metro:								
1997	163,223	110,608	67.8	105,199	64.5	5,410	4.9	8.7
1996	161,050	108,481	67.4	102,649	63.7	5,831	5.4	9.5
1995	158,587	106,666	67.3	100,716	63.5	5,951	5.6	10.0
1994	156,982	105,575	67.3	99,095	63.1	6,480	6.1	10.8
1993	151,698	101,799	67.1	94,673	62.4	7,126	7.0	10.2
1992	150,326	101,117	67.3	93,458	62.2	7,659	7.6	10.8
1991	148,954	100,024	67.2	93,267	62.6	6,757	6.8	9.8
1990	147,487	99,605	67.5	94,133	63.8	5,473	5.5	8.0

Notes: Beginning in 1994, the adjusted unemployment rate is defined as the total unemployed, plus all marginally attached workers, plus total employed part-time for economic reasons, as a percentage of the civilian labor force plus all marginally attached workers. This is reported by the Bureau of Labor Statistics as U-6. Prior to 1994, the adjusted unemployment rate is defined as total unemployed, plus discouraged workers, plus one-half of workers part-time for economic reasons as a percentage of the civilian labor force plus all discouraged workers.

Beginning in 1994, CPS estimates reflect a revised questionnaire and collection methodology and are not strictly comparable with prior data. Metro-nonmetro definition is based on the Office of Management and Budget (OMB) designation as of June 1, 1993. Beginning in 1996, estimates are based on a reduced sample size. Nonmetro areas were disproportionately affected by this change compared with metro areas. The nonmetro decline in the civilian noninstitutionalized population between the fourth quarter of 1995 and the first quarter of 1996 is thought to be the result of this change.

Source: Calculated by ERS using data from the Current Population Survey, Bureau of the Census.

Appendix table 6—Metro labor force and employment: Seasonally adjusted, first quarter 1990 through second quarter 1998

Year/quarter		Labor force	Employed	Labor force growth	Employment growth
		Thousands		Percent	
1998:	2nd	111,776	107,108	0.4	1.0
	1st	111,668	106,833	2.4	2.9
1997:	4th	111,020	106,069	1.9	2.8
	3rd	110,495	105,343	2.1	2.6
	2nd	109,920	104,673	1.8	2.4
	1st	109,428	104,058	1.8	2.2
1996:	4th	108,954	103,498	1.9	2.2
	3rd	108,443	102,929	1.6	2.1
	2nd	108,009	102,390	1.4	1.9
	1st	107,627	101,903	.9	1.2
1995:	4th	107,380	101,589	1.4	1.6
	3rd	107,009	101,198	1.4	1.4
	2nd	106,637	100,841	1.2	1.1
	1st	106,314	100,565	1.3	1.9
1994:	4th	105,981	100,088	.5	1.9
	3rd	105,836	99,629	1.3	2.2
	2nd	105,492	99,092	1.4	2.5
	1st	105,124	98,472	1.1	2.2
1993:	4th	104,838	97,934	1.6	2.1
	3rd	104,434	97,418	1.3	1.9
	2nd	104,092	96,957	1.2	1.6
	1st	103,773	96,571	-.3	1.1
1992:	4th	103,863	96,304	.4	1.2
	3rd	103,751	96,017	1.2	1.0
	2nd	103,436	95,780	1.7	1.0
	1st	103,004	95,532	2.6	.5
1991:	4th	102,345	95,406	1.3	.2
	3rd	102,018	95,353	.3	.1
	2nd	101,945	95,322	.6	-.5
	1st	101,791	95,433	-.5	-2.7
1990:	4th	101,916	96,093	-0	-1.7
	3rd	101,926	96,504	.9	-.2
	2nd	101,698	96,553	.9	.7
	1st	101,476	96,384	3.3	3.8

-0 = Less than -0.05 percent.

Source: Calculated by ERS using data from the Local Area Unemployment Statistics.

Appendix table 7—Nonmetro labor force and employment: Seasonally adjusted, first quarter 1990 through 2nd quarter 1998

Year/quarter		Labor force	Employed	Labor force growth	Employment growth
		Thousands		Percent	
1998:	2nd	26,180	24,800	0.7	0.2
	1st	26,223	24,785	1.0	1.7
1997:	4th	26,160	24,683	1.8	2.9
	3rd	26,042	24,508	1.3	1.9
	2nd	25,959	24,393	.1	1.0
	1st	25,951	24,331	-0	.4
1996:	4th	25,954	24,307	.3	.5
	3rd	25,936	24,278	.3	.8
	2nd	25,916	24,233	1.2	1.3
	1st	25,837	24,153	.9	.7
1995:	4th	25,781	24,110	.9	.7
	3rd	25,721	24,066	1.0	.4
	2nd	25,657	24,039	1.1	.5
	1st	25,589	24,010	1.3	1.9
1994:	4th	25,508	23,897	1.7	2.7
	3rd	25,403	23,739	2.0	2.9
	2nd	25,275	23,571	1.9	3.1
	1st	25,155	23,390	1.6	2.8
1993:	4th	25,054	23,230	1.9	2.7
	3rd	24,937	23,076	1.8	2.6
	2nd	24,828	22,926	2.3	2.0
	1st	24,689	22,811	.2	1.7
1992:	4th	24,679	22,715	.2	1.4
	3rd	24,665	22,634	1.6	1.7
	2nd	24,565	22,537	2.4	2.2
	1st	24,418	22,417	4.3	2.5
1991:	4th	24,163	22,280	1.6	.7
	3rd	24,067	22,240	.6	1.0
	2nd	24,034	22,183	1.5	.9
	1st	23,943	22,134	1.0	-1.2
1990:	4th	23,883	22,202	1.9	-.2
	3rd	23,769	22,214	.3	-.8
	2nd	23,752	22,259	.5	.6
	1st	23,724	22,226	-2.1	-1.5

-0 = Less than -0.05 percent.

Source: Calculated by ERS using data from the Local Area Unemployment Statistics.

Appendix table 8—Employment in nonmetro counties, by minority status, 1980-97

Year	Low minority	Black	Native American	Hispanic
		Thousands		
1997	21,849	1,785	248	596
1996	21,654	1,757	249	578
1995	21,459	1,765	249	583
1994	21,082	1,747	244	578
1993	20,496	1,722	234	558
1992	20,097	1,703	229	546
1991	19,755	1,684	221	544
1990	19,766	1,697	217	539
1989	19,807	1,692	211	529
1988	19,402	1,656	207	520
1987	18,956	1,638	205	506
1986	18,644	1,621	203	499
1985	18,487	1,628	198	513
1984	18,467	1,687	203	509
1983	18,046	1,648	197	507
1982	17,883	1,640	198	504
1981	18,068	1,667	202	495
1980	17,952	1,670	202	477

Source: Calculated by ERS using data from Bureau of Labor Statistics, Local Area Unemployment Statistics.

Appendix table 9—Real earnings per nonfarm job, by place of work, 1989-96

Place of work	1989	1990	1991	1992	1993	1994	1995	1996
				1996 dollars				
Nonmetro	22,782	22,460	22,204	22,586	22,647	22,629	22,465	22,492
Black	21,880	21,681	21,457	21,883	21,949	22,164	22,104	22,159
Substantial	22,151	21,913	21,667	22,105	22,149	22,297	22,225	22,261
Predominant	21,194	21,095	20,923	21,314	21,434	21,824	21,792	21,896
Native American	24,888	24,815	24,724	24,728	24,653	24,417	24,153	24,014
Substantial	22,846	22,007	22,782	23,228	23,205	23,107	22,911	22,666
Predominant	26,811	26,530	26,614	26,187	26,053	25,669	25,347	25,306
Hispanic	21,401	21,522	21,424	21,604	21,638	21,436	21,287	21,311
Substantial	22,288	22,348	22,239	22,401	22,503	22,357	22,308	22,189
Predominant	20,335	20,545	20,457	20,672	20,635	20,382	20,123	20,298
Metro	30,856	30,855	30,584	31,490	31,484	31,404	31,480	31,717
United States	29,517	29,457	29,175	29,977	29,974	29,893	29,927	30,135
				Percent				
Change in earnings from previous year:								
Nonmetro	NA	-1.4	-1.1	1.7	0.3	-0.1	-0.7	0.1
Black	NA	-.9	-1.0	2.0	.3	1.0	-.3	.2
Substantial	NA	-1.1	-1.1	2.0	.2	.7	-.3	.2
Predominant	NA	-.5	-.8	1.9	.6	1.8	-.1	.5
Native American	NA	-.3	-.4	0	-.3	-1.0	-1.1	-.6
Substantial	NA	.7	-1.0	2.0	-.1	-.4	-.8	-1.1
Predominant	NA	-1.0	.3	-1.6	-.5	-1.5	-1.3	-.2
Hispanic	NA	.6	-.5	.8	.2	-.9	-.7	.1
Substantial	NA	.3	-.5	.7	.5	-.6	-.2	-.5
Predominant	NA	1.0	-.4	1.0	-.2	-1.2	-1.3	.9
Metro	NA	-0	-.9	3.0	-0	-.3	.2	.8
United States	NA	-.2	-1.0	2.7	-0	-.3	.1	.7
				1996 dollars				
Amount by which earnings lag metro earnings:								
Nonmetro	8,073	8,396	8,381	8,904	8,837	8,775	9,015	9,225
Black	8,976	9,174	9,127	9,608	9,535	9,240	9,376	9,558
Substantial	8,705	8,942	8,917	9,385	9,335	9,107	9,255	9,456
Predominant	9,662	9,760	9,662	10,176	10,050	9,580	9,688	9,822
Native American	5,968	6,040	5,861	6,762	6,831	6,987	7,327	7,704
Substantial	8,010	7,849	7,803	8,263	8,279	8,297	8,569	9,051
Predominant	4,045	4,325	3,970	5,304	5,430	5,735	6,133	6,411
Hispanic	9,455	9,333	9,161	9,886	9,846	9,968	10,193	10,406
Substantial	8,568	8,508	8,346	9,089	8,981	9,047	9,172	9,528
Predominant	10521	10,310	10,127	10,819	10,849	11,022	11,357	11,420
				Percent				
Ratio of earnings to metro earnings:								
Nonmetro	73.8	72.8	72.6	71.7	71.9	72.1	71.4	70.9
Black	70.9	70.3	70.2	69.5	69.7	70.6	70.2	69.9
Substantial	71.8	71.0	70.8	70.2	70.3	71.0	70.6	70.2
Predominant	68.7	68.4	68.4	67.7	68.1	69.5	69.2	69.0
Native American	80.7	80.4	80.8	78.5	78.3	77.7	76.7	75.7
Substantial	74.0	74.6	74.5	73.8	73.7	73.6	72.8	71.5
Predominant	86.9	86.0	87.0	83.2	82.8	81.7	80.5	79.8
Hispanic	69.4	69.8	70.0	68.6	68.7	68.3	67.6	67.2
Substantial	72.2	72.4	72.7	71.1	71.5	71.2	70.9	70.0
Predominant	65.9	66.6	66.9	65.6	65.5	64.9	63.9	64.0

NA = Change from 1988 to 1989 not calculated. 0 and -0 = Positive and negative change of less than 0.05 percent.

Note: Previous years' earnings converted to 1996 dollars using the chained-type personal consumption expenditures price index.

Source: Calculated by ERS using data from the Bureau of Labor Statistics, Bureau of Economic Analysis.

Appendix table 10—Real per capita income, by place of residence, 1989-96

Place of residence	1989	1990	1991	1992	1993	1994	1995	1996
				1996 dollars				
Nonmetro	17,091	17,199	17,009	17,365	17,551	17,856	18,096	18,527
Black	14,387	14,577	14,717	15,069	15,313	15,793	16,081	16,489
Substantial	15,006	15,155	15,258	15,635	15,920	16,329	16,681	17,071
Predominant	13,062	13,332	13,550	13,844	13,993	14,622	14,764	15,206
Native American	12,557	12,770	12,908	13,248	13,570	13,572	13,671	13,843
Substantial	13,470	13,986	14,128	14,570	14,971	15,021	15,267	15,509
Predominant	11,745	11,711	11,842	12,104	12,360	12,325	12,317	12,431
Hispanic	14,406	14,829	14,504	14,583	15,185	14,721	14,700	14,876
Substantial	16,060	16,645	16,244	16,425	17,305	16,622	16,568	16,896
Predominant	12,653	12,927	12,712	12,718	13,071	12,834	12,855	12,886
Metro	24,151	24,257	23,859	24,176	24,382	24,699	25,405	25,944
United States	22,699	22,815	22,462	22,791	22,994	23,309	23,918	24,436
				Percent				
Change from previous year:								
Nonmetro	NA	0.6	-1.1	2.1	1.1	1.7	1.3	2.4
Black	NA	1.3	1.0	2.4	1.6	3.1	1.8	2.5
Substantial	NA	1.0	.7	2.5	1.8	2.6	2.2	2.3
Predominant	NA	2.1	1.6	2.2	1.1	4.5	1.0	3.0
Native American	NA	1.7	1.1	2.6	2.4	0	.7	1.3
Substantial	NA	3.8	1.0	3.1	2.7	.3	1.6	1.6
Predominant	NA	-.3	1.1	2.2	2.1	-.3	-.1	.9
Hispanic	NA	2.9	-2.2	.5	4.1	-3.1	-.1	1.2
Substantial	NA	3.6	-2.4	1.1	5.4	-3.9	-.3	2.0
Predominant	NA	2.2	-1.7	0	2.8	-1.8	.2	.2
Metro	NA	.4	-1.6	1.3	.9	1.3	2.9	2.1
United States	NA	.5	-1.5	1.5	.9	1.4	2.6	2.2
				1996 dollars				
Amount by which income lags metro income:								
Nonmetro	7,060	7,059	6,850	6,811	6,831	6,844	7,309	7,417
Black	9,765	9,680	9,141	9,107	9,069	8,906	9,324	9,455
Substantial	9,146	9,102	8,600	8,541	8,462	8,371	8,724	8,873
Predominant	11,089	10,925	10,309	10,332	10,389	10,077	10,640	10,738
Native American	11,594	11,487	10,950	10,928	10,812	11,127	11,733	12,101
Substantial	10,681	10,272	9,731	9,606	9,411	9,678	10,138	10,435
Predominant	12,407	12,547	12,016	12,072	12,022	12,375	13,088	13,513
Hispanic	9,745	9,429	9,354	9,593	9,197	9,978	10,705	11,068
Substantial	8,091	7,613	7,615	7,751	7,077	8,077	8,837	9,048
Predominant	11,498	11,330	11,147	11,458	11,311	11,865	12,550	13,058
				Percent				
Ratio of income to metro income:								
Nonmetro	70.8	70.9	71.3	71.8	72.0	72.3	71.2	71.4
Black	59.6	60.1	61.7	62.3	62.8	63.9	63.3	63.6
Substantial	62.1	62.5	64.0	64.7	65.3	66.1	65.7	65.8
Predominant	54.1	55.0	56.8	57.3	57.4	59.2	58.1	58.6
Native American	52.0	52.6	54.1	54.8	55.7	54.9	53.8	53.4
Substantial	55.8	57.7	59.2	60.3	61.4	60.8	60.1	59.8
Predominant	48.6	48.3	49.6	50.1	50.7	49.9	48.5	47.9
Hispanic	59.6	61.1	60.8	60.3	62.3	59.6	57.9	57.3
Substantial	66.5	68.6	68.1	67.9	71.0	67.3	65.2	65.1
Predominant	52.4	53.3	53.3	52.6	53.6	52.0	50.6	49.7

NA = Change between 1988 and 1989 not calculated. 0 = Less than 0.05-percent growth.

Note: Previous years' incomes converted to 1996 dollars using the chained-type personal consumption expenditures price index.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 11—Per capita income and transfer payments, by residence, 1996, and average annual changes in transfer payments, 1989-96[1]

Item	1996		Average annual change[2]			
	Income	Share of transfers	1989-96	1989-91	1991-94	1994-96
	Dollars	Percent[3]	Percent			
Nonmetro:						
Earnings	11,225	n/a	0.61	-1.16	2.00	1.03
Personal income	18,529	n/a	1.07	-.24	1.64	1.87
Transfer payments	3,894	100.0	4.20	5.56	3.43	2.45
Retirement/disability	1,945	50.0	1.82	2.29	1.80	1.24
Social Security	1,454	37.4	1.76	2.16	1.82	1.07
Medical	1,352	34.7	8.57	11.79	7.39	5.04
Medicare	743	19.1	6.88	5.03	7.51	7.11
Medicaid	602	15.4	11.44	21.68	7.71	2.90
Income maintenance programs	362	9.3	4.94	6.74	5.53	.93
Supplemental Security Income	114	3.0	6.01	5.25	7.82	1.60
Aid to Families with Dependent Children	51	1.3	-2.52	4.57	-2.28	-11.05
Food Stamps	87	2.2	2.79	11.53	.10	-5.21
Other income maintenance	110	2.8	13.18	4.13	20.25	14.76
Unemployment insurance	86	2.2	10.67	25.53	-4.63	-1.96
Veterans' benefits	100	2.6	-1.09	-3.28	-.91	.27
Other transfer programs	48	1.2	1.65	-5.06	-2.01	8.60
Metro:						
Earnings	17,200	n/a	.67	-1.31	1.26	1.91
Personal income	25,944	n/a	.99	-.60	1.16	2.49
Transfer payments	3,841	100.0	4.05	5.21	3.51	2.21
Retirement/disability	1,903	49.5	1.90	2.00	1.85	1.66
Social Security	1,248	32.5	1.70	1.87	1.76	1.23
Medical	1,365	35.5	7.45	9.51	7.11	4.54
Medicare	736	19.1	5.57	3.7	6.47	6.46
Medicaid	621	16.2	10.45	17.94	8.39	2.67
Income maintenance programs	372	9.7	4.60	6.96	5.80	-.43
Supplemental Security Income	109	2.8	6.20	5.47	7.68	2.62
Aid to Families with Dependent Children	90	2.3	-1.05	4.58	-.19	-8.27
Food Stamps	82	2.2	6.16	16.33	4.97	-5.25
Other income maintenance	92	2.4	9.73	1.90	15.87	11.23
Unemployment insurance	84	2.2	12.02	30.49	-2.47	-7.62
Veterans' benefits	76	2.0	-1.02	-2.82	-.89	.43
Other transfer programs	46	1.1	1.49	-3.03	-1.12	5.00

n/a = Not applicable.

[1] Government transfer payments to individuals (95 percent of all transfer payments). See p. 119 for definition of government transfer programs.

[2] Change in real 1996 dollars.

[3] Percentages shown for the major categories sum to 100. Percentages for the subcategories may not sum to the category value because only selected programs are included.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

Appendix table 12—Nonmetro per capita income and transfer payments, by region and selected county types, 1996

County type	Per capita income	Per capita transfers	Transfers as a share of income	Share of transfers from: Retirement/disability	Share of transfers from: Medical programs	Share of transfers from: Income maintenance programs	Share of counties designated high transfers
	Dollars	Dollars	Percent	Percent	Percent	Percent	Percent
All nonmetro	18,529	3,894	21.0	50.0	34.7	9.3	25.0
Region:							
Northeast	20,599	4,130	20.0	50.0	36.5	7.6	7.4
Midwest	19,348	3,668	19.0	53.5	34.0	6.8	15.2
South	17,452	4,052	23.2	47.2	36.4	11.0	37.5
West	18,622	3,736	20.0	51.7	29.5	10.1	16.0
Minority concentration:							
Black	16,489	4,137	25.1	41.5	38.3	15.0	45.9
Substantial	17,077	4,092	24.0	43.4	38.2	13.4	32.3
Predominant	15,206	4,232	27.8	37.6	38.5	18.4	68.8
Native American	13,843	3,845	27.8	33.5	34.3	18.5	59.0
Substantial	15,509	3,701	23.9	38.9	35.0	15.0	41.2
Predominant	12,431	3,966	31.9	29.2	33.8	21.3	72.7
Hispanic	14,876	3,696	24.8	40.1	37.8	16.4	36.4
Substantial	16,896	3,717	22.0	44.6	36.4	13.6	15.7
Predominant	12,886	3,674	28.5	35.6	38.9	19.0	64.9
Other types:							
Retirement-destination	19,584	4,308	22.0	54.8	31.7	7.7	31.6
Persistent-poverty	15,450	4,162	26.9	40.5	38.5	15.0	62.9
High transfers, 1994-96	15,414	4,696	30.5	43.9	38.0	12.4	100.0

Note: See pp. 118-119 for definition of regions and pp. 119-120 for ERS county types (typology codes).

Source: Calculated by ERS using data from the Bureau of Economic Analysis and revised ERS typology codes.

Appendix table 13—Nonmetro per capita transfer payments for public assistance, by minority county types, 1996

County type	Medicaid	SSI[1]	AFDC[2]	Food stamps	Other income maintenance[3]	All public assistance
			1996 dollars			
Nonmetro	602	114	51	87	110	964
Counties:						
Black	772	222	55	155	189	1,393
Substantial	742	193	53	134	168	1,290
Predominant	834	285	61	199	235	1,614
Native American	854	186	160	188	178	1,566
Substantial	695	173	110	124	149	1,251
Predominant	988	198	202	243	202	1,833
Hispanic	699	146	106	163	189	1,303
Substantial	645	117	97	124	168	1,151
Predominant	752	176	116	200	208	1,452

[1] Supplemental Security Income.

[2] Aid to Families with Dependent Children (replaced by Temporary Assistance to Needy Families beginning in mid-1996).

[3] Includes general assistance, emergency assistance, refugee assistance, foster home care payments, earned income tax credits, and energy assistance.

Source: Calculated by ERS using data from the Bureau of Economic Analysis.

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Appendix table 14—Poverty rates, by residence, region, and selected characteristics, 1996

Item	Poverty rate		Share of poor	
	Nonmetro	Metro	Nonmetro	Metro
	Percent			
Total	15.9	13.2	100.0	100.0
By region:				
Northeast	10.7	13.0	7.0	21.2
Midwest	12.4	10.2	23.6	16.6
South	18.7	14.0	51.6	34.8
West	18.4	15.0	17.7	27.5
By race/ethnicity:				
White non-Hispanic	12.2	7.5	63.2	39.4
Black non-Hispanic	35.2	26.9	20.7	27.1
Hispanic	33.4	28.9	11.1	27.4
Native American	33.7	28.6	3.7	1.5
By family type:				
Husband-wife headed families	8.2	6.5	34.9	32.2
Female-headed families	41.1	34.4	37.4	40.4
Women living alone	30.4	22.7	14.3	14.0
Men living alone	22.7	15.8	9.3	9.0
By age:				
0-17	22.4	20.0	38.1	40.0
18-64	13.5	10.9	50.1	51.3
65+	13.5	9.9	11.8	8.7
By family employment:				
One or more full-time-full-year workers	5.0	3.9	20.4	21.0
Part-time or part-year worker(s) only	40.7	35.1	43.6	37.8
No family member employed	56.8	64.2	25.9	33.8
No working-age person in family	14.8	11.3	10.0	7.4
By educational attainment (persons age 25 and above only):				
Less than high school graduation	24.9	24.8	45.7	42.2
High school diploma or GED	11.4	9.7	35.6	32.1
Some college or associate degree	8.1	6.7	14.4	17.0
Bachelor's degree or more	3.7	3.3	4.3	8.7

Notes: See pp. 118-119 for definition of regions. Shares of poor by race/ethnicity and family type do not add to 100 percent because not all categories are included. Work status refers to employment during the entire year. For persons living alone, family employment refers to the person's own work status.

Source: Calculated by ERS using data from the Bureau of the Census March 1997 Current Population Survey.

Appendix table 15—Selected characteristics of children, by residence, 1996

Item	Metro	Nonmetro	All
		Thousands	
Number of children	56,458	14,192	70,650
		Percent	
Share of population	26.4	27.1	26.5
Age (years):			
Less than 6	34.1	31.5	33.6
6+	65.9	68.5	66.4
Average age	8.4	8.8	8.5
Region:			
Northeast	20.5	9.7	18.3
Midwest	22.0	30.3	23.7
South	32.1	43.0	34.3
West	25.4	17.0	23.7
Race:			
White	61.6	75.9	64.6
Black	16.4	12.4	15.6
Hispanic	16.6	7.8	14.8
Native American	.6	2.3	.9
Other	4.8	1.6	4.1
Family structure:			
Two-parent family	69.8	70.2	69.9
Single-parent family	30.2	29.8	30.1
Education of parents:			
Two-parent family—			
Both high school graduate	80.4	75.8	79.5
One high school graduate	10.6	14.0	11.2
Neither high school graduate	9.0	10.2	9.3
Single-parent family—			
Head high school graduate	72.8	75.4	73.3
Head not high school graduate	27.2	24.6	26.7
No-earner family	4.1	5.1	4.3
Family size:			
One child	24.0	23.9	24.0
Two children	40.5	37.5	39.9
Three or more children	35.5	38.6	36.1

Source: Calculated by ERS using data from the March 1997 Current Population Survey.

Appendix table 16—Poverty rates of rural children, by selected characteristics and race/ethnicity, 1996

Item	White	Black	Hispanic	Native American	All
			Thousands		
Number of children	1,863	882	505	134	3,457
			Percent poor		
Age (years):					
Less than 6	22.2	60.9	48.0	47.7	30.4
6+	15.1	44.7	44.5	37.2	21.6
Region:					
Northeast	15.3	28.6*	36.0*	100.0*	15.9
Midwest	14.8	43.1	31.0*	40.6	16.9
South	18.8	51.3	45.6	37.8	29.8
West	21.3	30.4*	49.2	40.9	28.8
Family structure:					
Two-parent family	8.5	17.7	36.0	37.1	12.0
Single-parent family	45.2	68.0	74.8	43.6	53.5
Education of parents:					
Two-parent family—					
Both high school graduate	4.6	9.5	16.0	14.4*	5.6
One high school graduate	19.6	25.5	37.1	66.7*	23.4
Neither high school graduate	35.5	41.1	3.2	72.4*	44.2
Single-parent family—					
Head high school graduate	41.2	64.0	66.9	35.0	47.6
Head not high school graduate	64.4	75.7	81.1	70.5	71.6
No-earner family	79.0	95.3	95.5	100.0	87.0
Family size:					
One child	17.8	44.6	38.8	33.3*	23.0
Two children	14.6	46.6	37.2	32.0	19.6
Three or more children	20.0	55.2	53.3	50.3	29.8

*Weighted number less than 30 cases.

Source: Calculated by ERS using data from the March 1997 Current Population Survey.

Appendix table 17—Characteristics of households by poverty status, race/ethnicity, and age, 1995

	Total		White		Hispanic		Black		65 or older	
Characteristic	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
Nonpoor households:					Thousands					
U.S. total	17,798	65,129	16,108	50,587	524	5,138	974	6,989	4,436	12,446
Tenure—					Percent					
Owners	77.9	67.0	79.0	72.2	62.3	46.8	67.7	48.3	88.0	80.1
Renters	22.1	33.0	21.0	27.8	37.7	53.3	32.3	51.7	12.0	19.9
Household type—										
1 person	21.5	23.5	21.6	24.2	19.1	14.9	22.3	26.6	37.8	38.6
2+ persons: all adults	42.4	39.5	43.3	41.7	29.8	32.7	35.4	29.8	58.5	55.2
1 or more children	36.1	37.1	35.1	34.1	51.1	52.4	42.3	43.7	3.7	6.2
Householder age—										
Under 45	42.5	49.7	41.9	47.3	47.8	63.0	46.6	54.2	n/a	n/a
45 to 64	32.6	31.2	32.3	31.3	41.5	27.1	34.2	32.5	n/a	n/a
65 or older	24.9	19.1	25.8	21.4	10.7	9.9	19.1	13.3	n/a	n/a
Housing quality—										
Crowded	1.2	1.8	.8	.8	10.1	10.2	2.6	2.3	.2	.3
Lacking plumbing	1.3	1.3	1.3	1.2	1.5	1.3	2.6	1.9	1.9	1.4
Moderately inadequate	4.8	3.3	4.0	2.6	11.1	6.7	14.9	6.3	3.7	2.7
Severely inadequate	1.6	1.8	1.5	1.5	1.5	2.2	3.2	3.1	2.1	1.5
Expensive	2.4	5.7	2.4	5.3	3.4	7.6	2.0	6.1	2.5	8.6
Poor households:					Thousands					
U.S. total	3,789	10,979	2,828	5,634	196	1,898	618	2,954	1,320	2,639
Tenure—					Percent					
Owners	52.8	37.1	56.9	49.2	39.2	23.2	42.2	24.9	71.2	56.3
Renters	47.2	62.9	43.1	50.8	60.8	76.8	57.8	75.1	28.8	43.7
Household type—										
1 person	40.4	31.1	43.5	39.0	27.1	14.9	35.3	28.5	69.0	62.0
2+ persons: all adults	20.9	21.0	23.1	26.8	10.5	14.2	16.2	13.3	24.9	27.1
1 or more children	38.7	47.8	33.4	34.1	62.4	70.9	48.5	58.2	6.1	10.8
Householder age—										
Under 45	40.9	51.0	37.1	42.1	61.9	64.4	47.5	57.9	n/a	n/a
45 to 64	24.2	25.0	24.0	26.3	16.3	23.3	26.8	22.6	n/a	n/a
65 or older	34.8	24.0	38.8	31.6	21.8	12.3	25.6	19.5	n/a	n/a
Housing quality—										
Crowded	4.1	8.9	2.5	3.5	23.4	25.9	3.7	7.7	.6	.4
Lacking plumbing	3.6	2.1	3.5	2.2	3.2	2.1	4.9	2.0	4.1	2.5
Moderately inadequate	11.7	7.9	7.6	4.9	22.4	9.2	26.5	13.2	11.5	6.6
Severely inadequate	4.9	3.6	4.0	2.6	6.7	4.9	7.2	4.9	4.4	3.3
Expensive	42.2	63.4	45.6	67.3	28.4	58.8	33.9	57.0	34.4	57.5

See notes at end of table.

Continued—

Appendix table 17—Characteristics of households by poverty status, race/ethnicity, and age, 1995—Continued

Characteristic	Total		White		Hispanic		Black		65 or older	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
					Thousands					
All U.S. households	21,586	76,107	18,936	56,221	720	7,037	1,592	9,943	5,756	15,084
Tenure—					Percent					
Owners	73.4	62.7	75.7	69.9	56.0	40.4	57.8	41.4	84.1	75.9
Renters	26.6	37.3	24.3	30.1	44.0	59.6	42.7	58.6	15.9	24.1
Household type—										
1 person	24.9	24.6	24.9	25.7	21.3	14.9	27.3	27.1	44.9	42.7
2+ persons: all adults	38.6	36.8	40.3	40.2	24.5	27.7	[illegible]	24.9	50.8	50.3
1 or more children	36.6	38.6	34.8	34.1	54.2	57.4	44.7	48.0	4.3	7.0
Householder age—										
Under 45	42.2	49.9	41.2	46.7	51.7	63.4	47.0	55.3	n/a	n/a
45 to 64	31.2	30.3	31.0	30.8	34.6	26.1	31.4	29.6	n/a	n/a
65 or older	26.7	19.8	27.8	22.4	13.7	10.5	21.7	15.2	n/a	n/a
Housing quality—										
Crowded	1.7	2.9	1.1	1.1	13.8	14.4	3.0	3.9	.3	.3
Lacking plumbing	1.7	1.4	1.6	1.3	2.0	1.5	3.5	1.9	2.4	1.6
Moderately inadequate	6.0	4.0	4.5	2.8	14.1	7.4	19.4	8.3	5.5	3.3
Severely inadequate	2.2	2.0	1.9	1.6	2.9	2.9	4.8	3.6	2.7	1.8
Expensive	9.4	14.0	8.8	11.5	10.2	21.4	14.4	21.2	9.8	17.2

n/a = Not applicable.

Source: Calculated by ERS using data from the 1995 American Housing Survey.

Appendix table 18—Demographic and earnings characteristics of hired farmworkers, 1990-97

Characteristics	1990	1991	1992	1993	1994[1]	1995[1]	1996	1997
					Thousands			
Number of workers	886	884	848	803	793	849	906	889
					Percent			
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gender:								
Male	82.9	82.4	83.8	84.7	83.7	84.5	84.2	83.3
Female	17.1	17.6	16.2	15.3	16.3	15.5	15.8	16.7
Racial/ethnic group:								
White	61.0	60.3	59.7	57.5	51.3	53.5	58.9	52.4
Hispanic	29.4	28.3	30.7	33.6	41.3	41.1	36.0	41.0
Black and other	9.6	11.4	9.6	8.9	7.4	5.3	5.1	6.6
Age (years):								
Less than 25	31.5	25.0	24.7	27.2	28.0	30.1	27.9	30.7
25-44	47.6	51.6	52.6	51.1	48.8	44.2	46.0	45.6
45-59	14.4	15.1	16.3	16.2	17.2	18.2	19.1	17.1
60 and older	6.5	8.3	6.4	5.5	6.0	7.5	7.0	6.6
Marital status:								
Married	53.3	53.4	53.5	51.8	58.5	58.5	56.3	52.1
Widowed, divorced, or separated	8.9	11.2	10.1	9.5	8.7	7.5	8.1	8.4
Never married	37.8	35.4	36.4	38.6	32.8	34.0	35.6	39.5
Schooling completed:[2]								
0-4 years	11.1	11.5	14.1	16.4	13.4	14.2	13.1	12.2
5-8 years	21.6	21.2	16.0	17.4	22.9	22.5	19.9	22.1
9-11 years	22.8	22.6	27.0	21.8	22.7	22.7	24.2	24.8
12 years	31.4	31.0	26.9	27.0	25.9	25.9	25.4	22.3
13 years or more	13.1	13.7	16.0	17.4	15.6	14.7	17.4	18.6
					1997 dollars			
Median weekly earnings:								
Full-time workers[3]	295	285	275	278	271	274	286	277
All workers	246	247	229	244	258	253	256	250

Note: These characteristics are annual averages calculated from the 12 monthly Current Population Survey estimates.

[1] Revised.

[2] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[3] Full-time workers usually work 35 or more hours per week. Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Appendix table 19—Demographic and earnings characteristics of all wage and salary workers, 1990-97

Characteristics	1990	1991	1992	1993	1994[1]	1995[1]	1996	1997
	Thousands							
Number of workers	104,351	103,166	104,054	105,407	108,166	110,220	112,142	114,697
	Percent							
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Gender:								
Male	52.7	52.5	52.2	52.1	52.4	52.4	52.2	52.2
Female	47.3	47.5	47.8	47.9	47.6	47.6	47.8	47.8
Racial/ethnic group:								
White	78.3	78.1	77.9	77.7	76.3	76.2	75.0	74.0
Hispanic	7.9	8.0	8.0	8.2	9.3	9.5	9.7	10.4
Black and other	13.8	13.9	14.1	14.1	14.4	14.3	15.3	15.6
Age (years):								
Less than 25	15.8	17.2	16.7	16.6	17.1	16.8	16.2	16.4
25-44	56.5	55.4	55.2	54.7	54.3	53.9	53.8	53
45-59	21.8	21.7	22.5	23.2	23.4	24.0	24.7	25.4
60 and older	5.9	5.7	5.6	5.5	5.2	5.3	5.3	5.2
Marital status:								
Married	58.2	58.5	58.3	58.2	57.9	58.0	58.0	57.0
Widowed, divorced, or separated	14.3	14.3	15.4	14.6	14.5	14.4	14.5	14.6
Never married	27.5	27.2	27.2	27.1	27.6	27.6	27.5	28.4
Schooling completed:[2]								
0-4 years	1.0	.9	.9	.8	.8	.8	.7	.8
5-8 years	4.0	3.7	3.0	2.8	2.8	2.7	2.7	2.8
9-11 years	10.8	10.2	10.1	9.8	9.5	9.5	9.7	10.0
12 years	39.4	39.2	35.0	34.4	33.3	32.7	32.4	32.4
13 years or more	44.8	46.0	51.0	52.2	53.6	54.3	54.4	54.0
	1997 dollars							
Median weekly earnings:								
Full-time workers[3]	496	503	503	505	520	506	492	500
All workers	442	436	434	444	433	421	424	432

Note: These characteristics are annual averages calculated from the 12 monthly Current Population Survey estimates.

[1] Revised.

[2] Educational attainment levels, beginning January 1992, were revised to reflect degrees or diplomas received rather than years of school completed.

[3] Full-time workers usually work 35 or more hours per week. Data for 1994 and later years are not directly comparable with data for 1993 and earlier years.

Source: Calculated by ERS using data from the Current Population Survey earnings microdata file.

Appendix table 20—Income and net worth of farm operator households, by farm typology group, 1996

		Total household income			Off-farm income		Total net worth	
Item	Operator households	Average amount per household	From off-farm sources[1]	Share of U.S. average household income[2]	Average amount per household	From earned sources	Average amount per household	From off-farm sources
	Number	Dollars	Percent	Percent	Dollars	Percent	Dollars	Percent
Small family farms:[3]								
Limited-resource[4]	291,659	10,633	127.8	22.6	13,587	48.8	103,242	19.4
Retirement[5]	261,428	40,729	99.7	86.4	40,594	38.0*	436,259	28.0
Residential-lifestyle[5]	537,181	71,673	106.1	152.1	76,067	91.4	283,724	27.5
Farming occupation:[5]								
Lower sales	524,820	31,511	104.1	66.9	32,800	67.9	409,460	15.1
Higher sales	192,269	59,181	56.6	125.6	33,473	63.2	640,038	10.9
Large family farms[3]	95,485	75,674	29.6	160.6	22,409	75.6	746,526	11.1
Very large family farms[3]	58,822	193,798	18.0	411.3	34,951	75.7	1,488,966	7.7
All operator households	1,961,664	50,361	84.3	106.9	42,455	74.8	404,448	17.7

Note: Household data are not collected for nonfamily farms.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

[1] Income from off-farm sources can be more than 100 percent of total household income if earnings of the operator household from farming activities is negative.

[2] Average farm household income divided by U.S. average household income ($47,123).

[3] Family farms include farms organized as sole proprietorships, partnerships, or family corporations. Farms operated by hired managers are excluded. As defined here, small farms have gross sales of less than $250,000. Large family farms have sales between $250,000 and $499,999. Very large farms have sales of $500,000 or more.

[4] Limited-resource farms meet three conditions: household income less than $20,000, farm assets less than $150,000, and gross sales less than $100,000.

[5] Small farms other than limited-resource farms are classified according to the major occupation of their operators. Operators of retirement farms are retired. Operators of residential/lifestyle farms report a nonfarm occupation. Operators of farming occupation farms report farming as their major occupation.

Source: 1996 Agricultural Resource Management Study for farm operator and farm household data. Current Population Survey (CPS) for U.S. average household income.

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Appendix table 21— Characteristics of farms and their operators, by farm typology group, 1996

Item	Unit	Small family farms [1]				
					Farming occupation [3]	
		Limited-resource[2]	Retirement[3]	Residential/ lifestyle[3]	Lower sales (less than $249,999)	Higher sales ($100,000 to $100,000)
Farms	Number	291,659	261,428	537,181	524,820	192,269
Land operated per farm	Acres	100	205*	176	432	1,100
Sales less than $10,000	Percentage of farms	87.6	78.6	74.3	42.4	n/a
Mean gross cash farm income	Dollars per farm	5,327	10,481	11,996	30,064	152,276
Conservation Reserve Program (CRP) is sole source of gross farm income	Percentage of farms	d	21.4	4.5*	3.4	0
Farms by specialization:						
Cash grain	do.	8.0**	4.0*	9.4	17.9	49.0
Other field crops[5]	do.	17.0*	41.0	18.3	17.4	7.2
High-value crops[6]	do.	6.0*	7.8*	5.4	10.1*	6.3
Beef	do.	54.1	35.9	45.6	38.0	8.4*
Hogs	do.	d	d	d	d	d
Dairy	do.	d	d	d	4.5	21.4
Other livestock	do.	12.0*	10.7	18.0	10.0*	d
Farms by major farming region:						
Northeast	do.	d	d	5.5	7.5*	6.8**
Lake States	do.	d	7.5	6.7	13.0	16.3
Corn Belt	do.	13.6*	24.0	17.9	13.8	29.8
Northern Plains	do.	d	d	7.7*	8.4	17.3
Appalachia	do.	20.4*	23.0*	19.9	12.2	5.4
Southeast	do.	4.8*	8.1*	8.2	8.2	5.3*
Delta	do.	7.5*	6.6*	9.9*	3.8	3.3*
Southern Plains	do.	29.6*	11.0*	12.7	18.1	6.0
Mountain	do.	d	4.1*	5.5	6.6	5.7
Pacific	do.	d	4.8*	6.0	8.5	4.2
Average age	Years	61	71	48	58	52
Operators by occupation:	Percentage of operators					
Farming		32.2	n/a	n/a	100.0	100.0
Hired manager	do.	n/a	n/a	n/a	n/a	n/a
Something else	do.	19.1*	n/a	100.0	n/a	n/a
Retired	do.	48.7	100.0	n/a	n/a	n/a

See notes at end of table.

Continued—

Appendix table 21—Characteristics of farms and their operators, by farm typology group, 1996—Continued

Item		Large family farms[1] (sales of $255,000 to $499,999)	Very large family farms[1] (sales of $500000 or more)	Nonfamily farms[4]	All U.S. farms
Farms	Number	95,485	58,822	47,238*	2,008,902
Land operated per farm	Acres	1,311	2,343	904*	459
Sales less than $10,000	Percentage of farms	n/a	n/a	55.7*	55.2
Mean gross cash farm income:	Dollars per farm	315,020	972,849	259,158*	77,326
Conservation Reserve Program (CRP) is sole source of gross farm income	Percentage of farms	0	0	d	5.3
Farms by specialization:					
Cash grain	do.	40.2*	24.1	27.2**	16.8
Other field crops[5]	do.	15.3*	19.0	10.1*	19.5
High-value crops[6]	do.	7.1*	10.5	11.3*	7.5
Beef	do.	7.1*	12.3	10.6*	36.4
Hogs	do.	3.7	6.5	d	2.2*
Dairy	do.	15.2*	12.8	d	4.6
Other livestock	do.	11.3	14.7	d	13.0
Farms by major farming region:					
Northeast	do.	7.5**	5.2**	d	5.7*
Lake States	do.	9.3	6.3	d	9.5
Corn Belt	do.	21.0	18.0	6.4**	18.0
Northern Plains	do.	16.4*	d	d	9.4
Appalachia	do.	9.4*	d	d	15.7
Southeast	do.	5.4*	8.8	5.0**	7.2
Delta	do.	6.0*	d	d	6.6
Southern Plains	do.	12.0*	d	d	16.1
Mountain	do.	6.6	8.7	7.9**	5.2
Pacific	do.	6.4*	16.3	10.6*	6.5
Average age	Years	50	51	54	56
Operators by occupation:	Percentage of				
Farming	operators	97.5	94.9	20.4**	48.3
Hired manager	do	n/a	n/a	66.7	1.6*
Something else	do	d	4.5*	d	30.0
Retired	do.	d	d	d	20.1

n/a = Not applicable.

d = Data suppressed due to insufficient observations or a relative standard error that exceeds 75 percent.

*The relative standard error exceeds 25 percent but is no more than 50 percent.

**The relative standard error exceeds 50 percent but is no more than 75 percent.

[1] Family farms include farms organized as sole proprietorships, partnerships, or family corporations. Farms operated by hired managers are excluded. As defined here, small farms have gross sales of less than $250,000. Large family farms have sales between $250,000 and $499,999. Very large farms have sales of $500,000 or more.

[2] Limited-resource farms meet three conditions: household income less than $20,000, farm assets less than $150,000, and gross sales less than $100,000.

[3] Small farms other than limited-resource farms are classified according to the major occupation of their operators. Operators of retirement farms are retired. Operators of residential/lifestyle farms report a nonfarm occupation. Operators of farming occupation farms report farming as their major occupation.

[4] Nonfamily farms include farms organized as nonfamily corporations or as cooperatives, as well as farms operated by hired managers.

[5] Includes farms where the Conservation Reserve Program (CRP) is the sole source of gross farm income.

[6] Vegetables, fruits, tree nuts, and horticultural specialties.

Source: 1996 Agricultural Resource Management Study.

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